Calabazas Creek Flood Protection Project

Final Initial Study and Mitigated Negative Declaration

Project Number 26104001

December 2009

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118-3614

Prepared by:

Environmental Science Associates

Under the direction of:

Kurt Lueneburger
Environmental Planner

Debra Caldon
Environmental Planning Unit Manager

District Board of Directors

Rosemary Kamei	District 1	Patrick Kwok	District 5
Joe Judge, Vice Chair	District 2	Tony Estremera	At Large
Richard P. Santos	District 3	Sig Sanchez, Chair	At Large
Larry Wilson	District 4		

Findings of a Mitigated Negative Declaration

Pursuant to the California State Public Resources Code and The California Environmental Quality Act (CEQA) Guidelines, as amended to date, the Santa Clara Valley Water District (SCVWD) submits an Initial Study and Mitigated Negative Declaration (IS/MND) for the Calabazas Creek Flood Control Project (project) in Santa Clara County, California.

Proposed Project

The proposed project is part of the SCVWD's Clean, Safe Creeks and Natural Flood Protection Program. Accordingly, the project objective is to provide 100-year flood protection to the Calabazas Creek watershed. The proposed flood protection components include enlarging an existing culvert beneath Saratoga-Sunnyvale Road, creating a detention basin adjacent to the creek, and replacing the Union Pacific Railroad (UPRR) bridge over the creek.

Location

The project is located in an area of mixed residential and commercial land uses adjacent to Calabazas Creek in the City of Saratoga. The project extends along the creek from Saratoga-Sunnyvale Road to the UPRR.

Findings

The attached IS/MND for the proposed project indicates that:

The Calabazas Creek Flood Protection Project provides one-percent flood protection to businesses and residents located in the Calabazas Creek watershed; and

Completion of the proposed project, with mitigation as outlined in this document, will not have a significant effect on the environment; and

A Mitigated Negative Declaration be filed as the appropriate CEQA document for this project (see pages 17-18).

Basis of Findings

The project would not cause significant adverse impacts related to aesthetics; agricultural resources; air quality; biological resources; cultural resources; geology and soils; hazards and hazardous materials; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; transportation and traffic; and utilities and service systems.

The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species. The project would not affect any important examples of cultural resources from the major periods of California prehistory or history. The project would not result in long-term cumulative impacts. In addition, substantial adverse effects on humans, either direct or indirect, would not occur.

Potentially significant impacts to sensitive species and habitats may occur as a result of the project. However, potentially significant impacts would be reduced to a less-than-significant level with the implementation of the mitigation measures described in the Mitigation Monitoring and Reporting Program Summary Table (Appendix A).

Potentially significant impacts to neighboring residential areas due to light, noise, and traffic related to construction may occur as a result of the project. However, these impacts would be reduced to a less-than-significant level because mitigation measures related to aesthetics, noise, land use, and traffic described in the Mitigation Monitoring and Reporting Program Summary Table (Appendix A) would be implemented.

Standard District BMPs (Appendix A) are incorporated into the project to avoid or minimize impacts to: air quality; biological resources; cultural resources; geology and soils; hazards and hazardous materials; hydrology and water quality; noise; and traffic to levels not considered significant. The District's Health and Safety Unit also will ensure that all applicable human health and safety standards are met. With the implementation of the above mitigation measures and standard District BMPs, the project would not have significant impacts.

Attached is the IS/MND prepared for the project. The public can review the IS/MND and documents used in its preparation at the Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118-3614. For further information please contact Kurt Lueneburger at (408) 265-2607 ext. 3055 or by e-mail at klueneburger@valleywater.org.

Contents

FINDINGS OF A MITIGATED NEGATIVE DECLARATION i
CONTENTS iii
LIST OF ACRONYMS v
KEY TERMINOLOGY vi
Section 1 Introduction 1
ORGANIZATION OF THIS DOCUMENT 1
PURPOSE OF THE INITIAL STUDY 1
DECISION TO PREPARE A MITIGATED NEGATIVE DECLARATION FOR THIS PROJECT 1
PUBLIC REVIEW PROCESS 2
INTERAGENCY COLLABORATION AND REGULATORY REVIEW 2
Section 2 Project Description 5
PROJECT OBJECTIVES 5
PROJECT SCOPE OF WORK 5
Section 3 Environmental Setting 15
PROJECT LOCATION 15
PHYSICAL ENVIRONMENT 15
Section 4 Environmental Evaluation 17
INITIAL STUDY CHECKLIST 17
AESTHETICS 19
AGRICULTURAL RESOURCES 23
AIR QUALITY 24
BIOLOGICAL RESOURCES 29
CULTURAL RESOURCES 37
GEOLOGY AND SOILS 39
HAZARDS AND HAZARDOUS MATERIALS 42
HYDROLOGY AND WATER QUALITY 44
LAND USE AND PLANNING 48
MINERAL RESOURCES 49
NOISE 50
POPULATION AND HOUSING 54
PUBLIC SERVICES 54
RECREATION 55
TRANSPORTATION/TRAFFIC 56
UTILITIES AND SERVICE SYSTEMS 60
MANDATORY FINDINGS OF SIGNIFICANCE 61
Section 5 Report Preparation 63
SANTA CLARA VALLEY WATER DISTRICT 63
ENVIRONMENTAL SCIENCE ASSOCIATES 63
ENVIRONMENTAL VISION 63
WILLIAM SELF ASSOCIATES 63
YUKI KAWAGUCHI 64
AGENCIES OR PERSONS CONTACTED 64
Section 6 References 65

Tables

Table 1 Summary Of Agency Approvals 3
Table 2 Summary of Flood Protection Improvements 5
Table 3 Summary of Construction Activities 12
Table 4 Estimated Emissions of Greenhouse Gases from Proposed Project 26
Table 5 Project Emissions 28
Table 6 Proposed Tree Removal 35
Table 7 Typical Construction Equipment Noise Levels 51

Figures

Figure 1 Project Vicinity Map 6
Figure 2 Proposed Flood Protection Project 7
Figure 3 Proposed Modifications at the Saratoga-Sunnyvale Culvert 9
Figure 4 Proposed Modifications at the UPRR Bridge 11
Figure 5 Visual Character Photos 20
Figure 6 Photo Viewpoint Map 21
Figure 7 Tree Removal Map - Northern Project Area 33
Figure 8 Tree Removal Map - Southern Project Area 34

Appendices

Appendix A Mitigation Monitoring and Reporting Program Summary Table
Appendix B Response to Public Comments

List of Acronyms

BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2E	carbon dioxide equivalents
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Federal Clean Water Act
CY	cubic yards
dBA	Decibels on the A-weighted scale
dbh	diameter at breast height
EIR	Environmental Impact Report
ESA	Endangered Species Act
I-280	Interstate 280
IS	Initial Study
Leq	equivalent continuous sound level
LOS	level of service
MM	Mitigation Measure
MMT	million metric tons
MND	Mitigated Negative Declaration
MT	million tons
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OPR	Office of Planning and Research
PM	particulate matter
ppm	parts per million
PPV	peak particle velocity
PVC	polyvinyl chloride
RCB	Reinforced concrete box culvert

ROG	reactive organic gases
RWQCB	San Francisco Bay Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SCVTA	Santa Clara Valley Transportation Authority
SCVURPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TPZ	Tree Protection Zone
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
Vdb	Vibration decibels

Key Terminology

Beneficial Impact: A project impact is considered beneficial if it would result in the enhancement or improvement of an existing physical condition in the environment – no mitigation is required.

Best Management Practices: A subset of mitigation measures derived from standardized SCVWD operating procedures. These practices have been identified as methods, activities, procedures, or other management practices for the avoidance or minimization of potential adverse environmental effects. They have been designed for routine incorporation into project designs and represent the "state of the art" impact prevention practices.

Less-than-significant Impact: This is indicated in the Initial Study checklist where the impact does not reach the standard of significance set for that factor and the project would therefore cause no substantial change in the environment (no mitigation needed).

Mitigation Measures: Mitigation includes: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.[1]

No Impact: This is indicated in the Initial Study where, based on the environmental setting, the stated environmental factor does not apply to the proposed project.

Potentially Significant Impact: An environmental effect that may cause a substantial adverse change in the environment; however additional information is needed regarding the extent of the impact to make a determination of significance. For the purposes of review such are treated as if significant impact and mitigation measures are proposed.

Significance Criteria: A set of criteria used by the lead agency to determine whether an impact would be considered significant. The SCVWD relied upon the significance criteria set forth in the CEQA Guidelines and criteria based on the regulatory standards of local, state and federal agencies.

Significant Impact: An impact that would likely result in a substantial adverse change in the physical conditions of the environment. Mitigation measures and/or project alternatives are identified to avoid or reduce these effects to the environment.

---

[1] Authority cited: Sections 21083 and 21087, Public Resources Code; Reference: Sections 21002, 21002.1, 21081, and 21100(c), Public Resources Code.

Section 1 Introduction

Organization of this document

This document is organized to assist the reader in understanding the potential impacts that the project may have on the environment and to fulfill the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 *et seq.*). Section 1 indicates the purpose under CEQA, sets forth the public participation process, and summarizes applicable state and federal regulatory requirements. Section 2 describes the location and features of the project and Section 3 describes the environmental setting. Section 4 evaluates the potential impacts through the application of the CEQA Initial Study Checklist questions to project implementation. Section 5 lists the contributors, and Section 6 supplies the references used in its preparation. A Mitigation Monitoring and Reporting Program summary table is provided in Appendix A, and responses to public comments received during the 30-day public review period are provided in Appendix B.

Purpose of the Initial Study

The Santa Clara Valley Water District (SCVWD), acting as the Lead Agency, prepared a draft Initial Study and Mitigated Negative Declaration (IS/MND) to provide the public, responsible agencies and trustee agencies with information about the potential environmental effects of the proposed Calabazas Creek Flood Protection Project (proposed project).

This IS/MND was prepared consistent with CEQA, the CEQA Guidelines (Title 14, California Code of Regulations 15000 *et seq.*), and SCVWD procedures for implementation of CEQA (Environmental Planning Guidance Q520D01). CEQA requires that public agencies such as the SCVWD identify the significant adverse impacts and beneficial environmental effects of their actions. Beneficial impacts should be encouraged and expanded where possible and adverse impacts should be avoided or minimized, or mitigated in cases where avoidance and minimization are not possible.

In addition to acting as the CEQA Lead Agency for its projects; the SCVWD's mission includes objectives to conduct its activities in an environmentally sensitive manner as a steward of Santa Clara Valley watersheds. The SCVWD strives to preserve the natural qualities, scenic beauty and recreational uses of Santa Clara Valley's waterways by using methods that reflect an ongoing commitment to conserving the environment.

Decision to Prepare a Mitigated Negative Declaration for this Project

The Initial Study (Section 4) for the Calabazas Creek Flood Protection Project identifies potentially significant effects on aesthetics; biological resources; land use; noise; and transportation and traffic. Mitigation measures have been proposed for the project to reduce such effects to less-than-significant levels; and therefore, the proposed Mitigated Negative Declaration is consistent with CEQA Guidelines §15070 which indicate that a mitigated negative declaration is appropriate when:

The project Initial Study identifies potentially significant effects, but:

a. Revisions to the project plan were made that would avoid, or reduce the effects to a point where clearly no significant effects would occur, and

b. There is no substantial evidence that the project, as revised, may have a significant effect on the environment.

Public Review Process

~~This~~ The draft IS/MND ~~will be~~ was circulated to local, state and federal agencies, interested organizations and individuals who may have wished to review and provide comments on the project description, the proposed mitigation measures or other aspects of the report. The publication ~~will~~ commenced the 30-day public review period per CEQA Guidelines §15105(b) beginning on **September 21, 2009** and ending on **October 22, 2009**.

The draft IS/MND and all supporting documents ~~are~~ were available for review:

- Santa Clara Valley Water District
  Headquarters Building
  5700 Almaden Expressway
  San Jose, CA 95118

Copies of the report were available for review:

- Saratoga Library
  13650 Saratoga Avenue
  Saratoga, CA 95070-5999
- Cupertino Library
  10800 Torre Avenue
  Cupertino, CA 95014
- Posted on the SCVWD website: www.valleywater.org (click on "Access CEQA Documents for Public Review" under "district quick links" on the home page), or
- Via written request for a copy from the SCVWD.

~~Written comments or questions regarding the draft IS/MND should be submitted to the name and address indicated below. Submittal of written comments via e-mail would greatly facilitate the response process.~~

~~Kurt Lueneburger~~
~~Environmental Planner~~
~~Santa Clara Valley Water District~~
~~5750 Almaden Expressway~~
~~San Jose, CA 95118-3614~~

~~Phone: (408) 265-2607 ext. 3055~~
~~Fax: (408) 266-0271~~
~~e-mail: klueneburger@valleywater.org~~

The District Board of Directors is tentatively scheduled to consider adoption of the Mitigated Negative Declaration at its meeting on December 8th (the meeting date is subject to change). The ~~proposed~~ Mitigated Negative Declaration along with any comments will be considered by the SCVWD Board of Directors prior to a decision on the project.

Interagency Collaboration and Regulatory Review

The CEQA review process is intended to provide both trustee and responsible agencies with an opportunity to provide input into the project. Trustee agencies are state agencies that have authority by law for the protection of natural resources held in trust for the public. Responsible agencies are those that have some responsibility or authority for carrying out or approving a project; in many instances these public agencies must make a discretionary decision to issue a local permit; provide right-of-way, funding or resources that are critical to the project's proceeding. In this instance the

City of Saratoga and the San Francisco Bay Regional Water Quality Control Board (RWQCB) are considered responsible agencies and California Department of Fish and Game (CDFG) is considered a trustee agency. As discussed below, coordination with several other agencies will be necessary in order to secure permits for the proposed project.

The SCVWD will work with the City of Saratoga and CDFG to ensure that the proposed project meets applicable policies and requirements.

Federal requirements will have to be met because the project has the potential to affect regulated wetland areas under the Federal Clean Water Act (CWA). Specifically, if the project requires a dredge and fill permit (CWA §404) the United States Army Corps of Engineers (USACE) will have the responsibility to determine the conditions of issuance. This federal action under the CWA cannot be taken until USACE receives certification from the Regional Board (CWA §401) and has consulted with the United States Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS) as to whether its action or the project could impact a federally protected endangered species.

This IS/MND is intended to assist federal, state and local agencies to carry out their responsibilities for permit review or approval authority over various aspects of the project. The Calabazas Creek Flood Protection Project would likely require project-specific permitting as summarized in Table 1 below.

Table 1 Summary Of Agency Approvals

Agency	Permit/Review Required
California Regional Water Quality Control Board, San Francisco Bay Region	CWA §401 (33 U.S.C. 1341) Water Quality Certification; and CWA §402(p) (33 U.S.C. 1342) General Permit for Construction Activities.
California Department of Fish & Game	Fish and Game Code §1602 Streambed Alteration Agreement, and Compliance with the State Endangered Species Act (Fish and Game Code §2080).
City of Saratoga	Tree Removal Permit ; Encroachment permit; Traffic Plan
U.S. Army Corps of Engineers	CWA §404 (33 U.S.C. 1344) Permit
U.S. Fish & Wildlife Service	ESA §7 (50 CFR part 402) consultation, (as determined by USACE)

This page intentionally left blank

Section 2 Project Description

Project Objectives

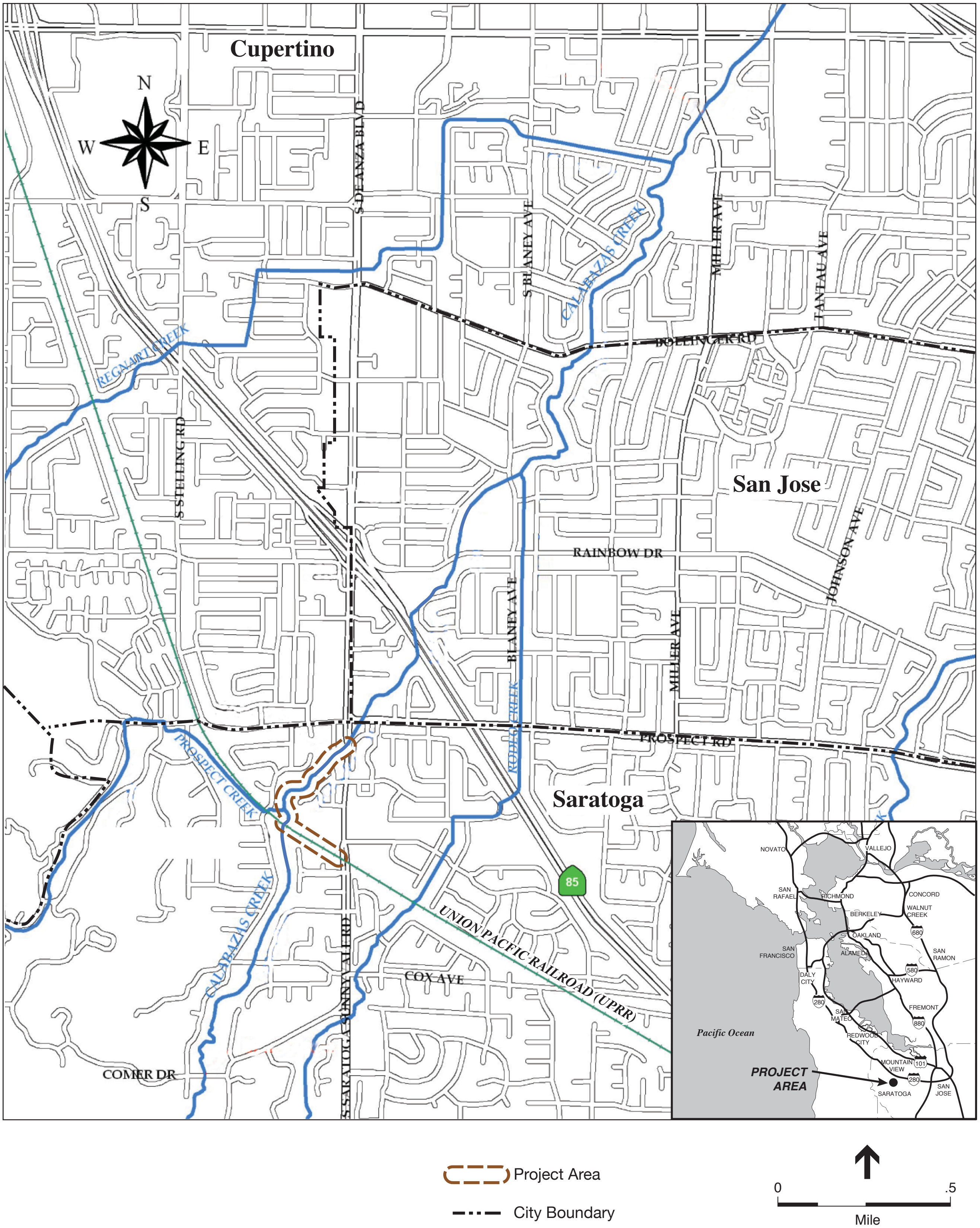
The proposed Calabazas Creek Flood Protection project (proposed project) is part of the SCVWD's Clean, Safe Creeks and Natural Flood Protection Program, which was adopted in 2000. The proposed project is intended to fulfill the SCVWD Board of Directors Ends Policy Number E-2.2. Policy Number E-2.2 states: *There is natural flood protection that balances environmental quality, community benefit, and protection from creek flooding in a cost effective manner* (SCVWD, 2008a). Accordingly, the project objective is to provide 100-year flood (i.e., one-percent chance of occurring in a given year) protection to the Calabazas Creek watershed.

Project Scope of Work

This project provides flood protection improvements within the City of Saratoga (**Figure 1**) by implementing elements that would improve flow efficiency in the event of a one-percent flood. The first proposed flood protection component includes improving an existing low-lying area and modifying an existing culvert beneath Saratoga-Sunnyvale Road. The second flood protection component includes the replacement of a UPRR bridge. **Figure 2** shows the location of the proposed project flood protection improvements, work areas, and staging areas. **Table 2** presents a summary of proposed project improvements for protection from one-percent flood flows.

Table 2 Summary of Flood Protection Improvements

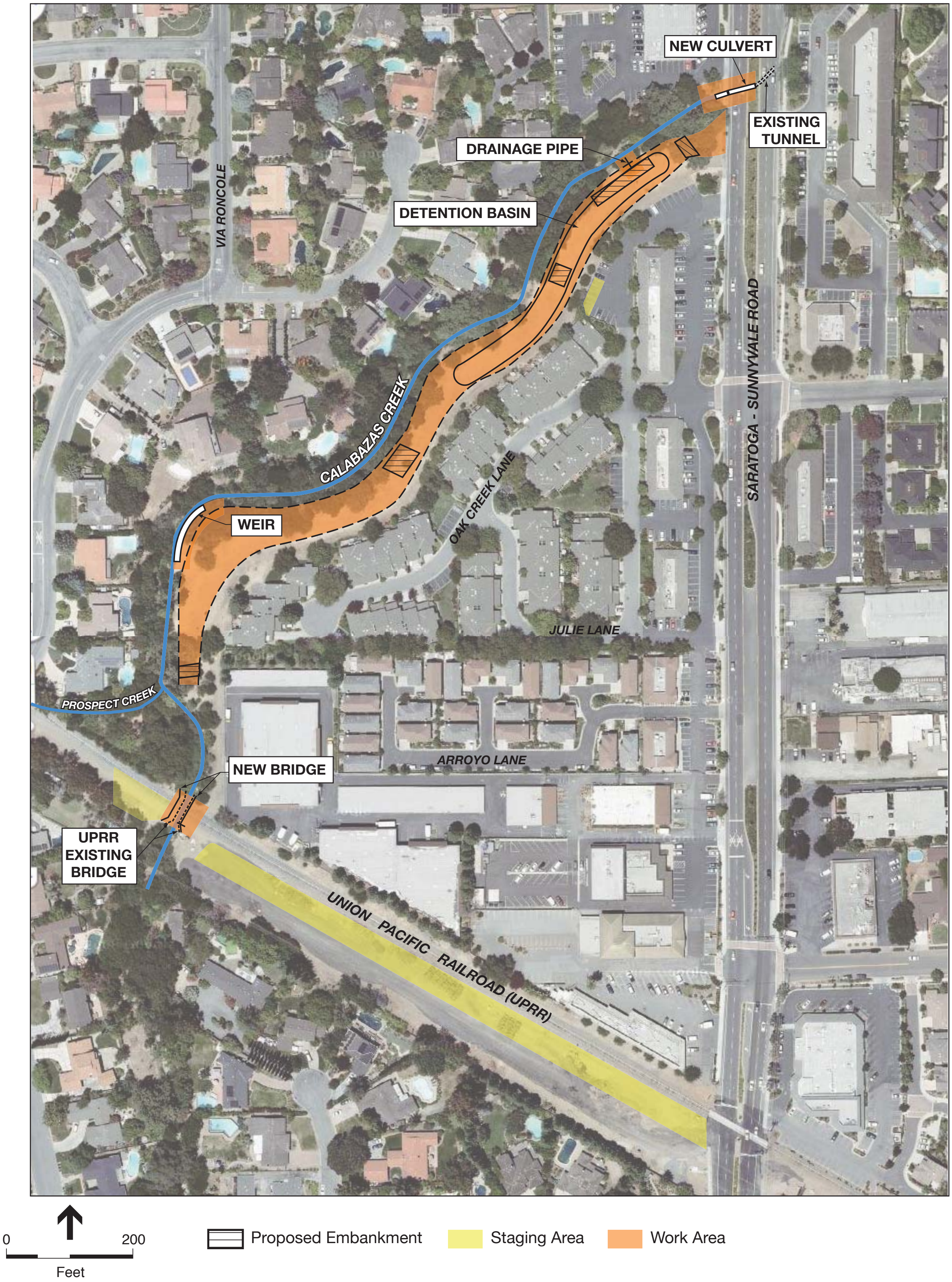
Project Component	Proposed Actions
Detention Basin and Culvert Modification	• Replace a section of existing concrete culvert on Calabazas Creek, under Saratoga-Sunnyvale Road with precast reinforced concrete box culvert (RCB) to provide additional flow. The new culvert would be 10 feet high, 12 to 16 feet wide and 80 feet long. • Install rockfill on the streambed along Calabazas Creek that extends from the upstream end of the new RCB entrance to 20 feet upstream to protect the channel from erosion due to the increased velocity at the culvert entrance. The rockfill would be approximately 20 feet long, 15 feet wide, and 2 feet deep (22 cubic yards [CY]). • Create a 65-foot long earthen weir on the bank of Calabazas Creek to divert flow into the upstream end of the existing low-lying area. • Create five earthen embankments at low points in the creek bank to prevent stored water from re-entering Calabazas Creek after a flood event. • Install an approximately 64-foot long, 18-inch diameter, drainage pipe with a flap-gate at its outlet. The drainage pipe would be placed approximately 200 feet upstream of Sunnyvale-Saratoga Road. The pipe would provide return flows back into the creek at the downstream end of the existing low-lying area. Place rockfill at overflow weir and spillway for erosion protection.
UPRR Bridge Replacement	• Replace an existing UPRR wooden bridge crossing over Calabazas Creek with a larger capacity approximately 7 feet high, 20 feet wide, and 38 feet long precast bridge to provide additional flow capacity. • Install rockfill at the bottom or at an invert along Calabazas Creek that extends approximately ~~20~~ 45 feet upstream and 20 feet downstream of the new UPRR bridge. The rockfill at the downstream side of the UPRR bridge would be approximately 20 feet long, 23 feet wide, and 2 feet deep (34 CY). The rockfill at the upstream side of the bridge would be approximately 45 feet long, 25 feet wide, and 2 feet deep (83 CY).
SOURCE: SCVWD	



Calabazas Creek Initial Study/Mitigated Negative Declaration . 205516

SOURCE: SCVWD, 2006

Figure 1
Project Vicinity Map



SOURCE: ESA

Calabazas Creek Initial Study/Mitigated Negative Declaration . 205516

Figure 2
Proposed Flood Protection Project

Construction Activities

Detention Basin and Culvert Modification

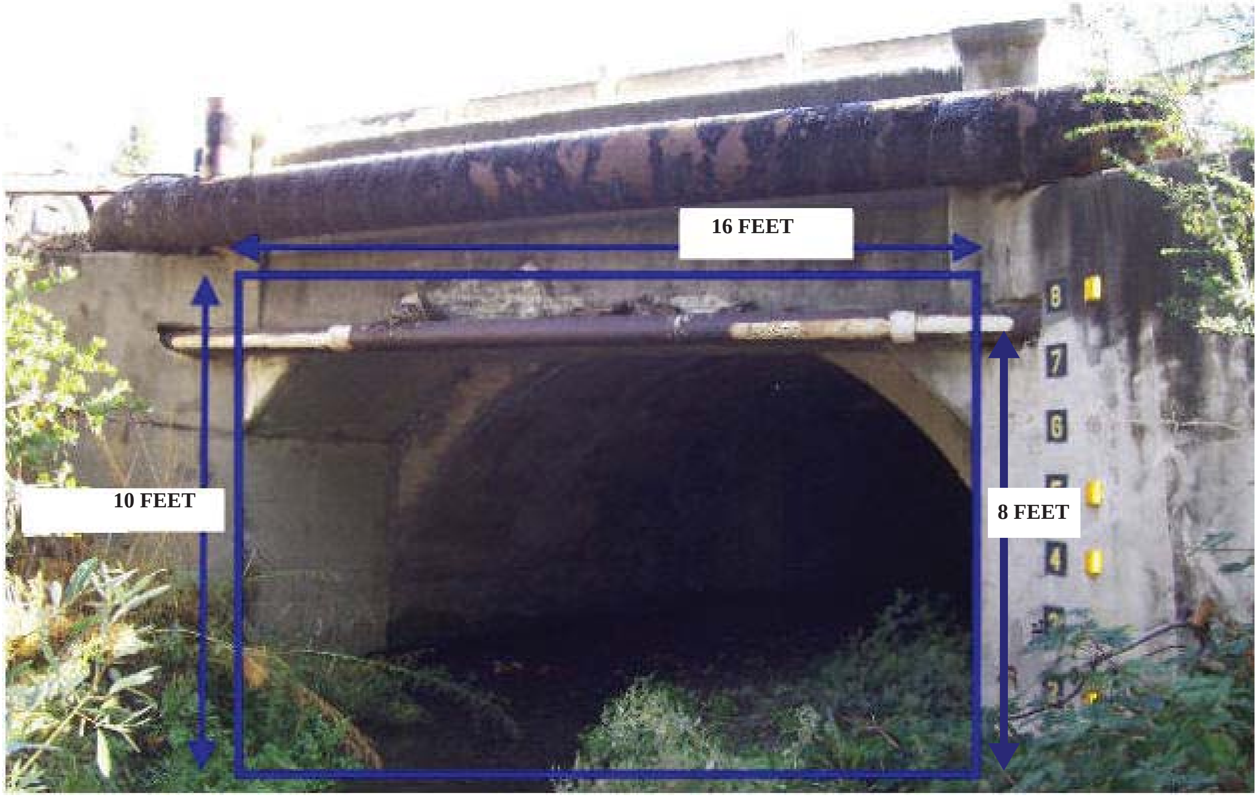
A portion of the existing concrete culvert on Calabazas Creek would be replaced with a larger-capacity reinforced concrete box culvert (RCB) under Saratoga-Sunnyvale Road as shown in **Figure 3**. The new culvert section would be 10 feet high, 12 to 16 feet wide, and 80 feet long. The new RCB section would have the same slope and be constructed along approximately the same alignment as the existing culvert under Saratoga-Sunnyvale Road. From the new culvert entrance to 20 feet upstream, rockfill would be placed flush with the channel bottom to protect the channel bottom from erosion. The rockfill would be approximately 20 feet long, 15 feet wide, and 2 feet deep (22 CY).

To accommodate culvert construction, phone, water, and gas lines in the construction area would be relocated. Utility crews would expose existing phone lines in Saratoga-Sunnyvale Road and install a new manhole on the alignment. The phone lines would be temporarily suspended over the creek until construction activities would allow replacement of the lines back in the roadway easement. The phone lines would most likely be supported by a metal beam placed across the creek; however the actual suspension system to be installed would be coordinated between AT&T and the contractor prior to construction. Similarly, the water line would be temporarily rerouted around the construction area by suspending a bypass (also called a “jumper line”) over the creek. The bypass would span approximately 44 feet and would be supported by two A-frame pipe supports. The pipe supports would be set back approximately two feet away from the edge of the creek embankment elevating the pipe at least 18 inches above the top-of-bank grade. These pipe supports would ensure that the pipe does not contact the embankment edge. Upon completion of construction the water line would be replaced on new supports in the culvert wing walls. Approximately 200 feet of 4-inch gas line would be relocated under the culvert and Saratoga-Sunnyvale Road. Directional boring would be used to install the new gas line.

A 65-foot long earthen weir on the bank of Calabazas Creek would be created to temporarily divert into the upstream end of the existing low-lying area during 100-year flood events. Gaps in the creek bank would be filled at five different locations; fill quantities are specified in Table 3. These fill areas would prevent water from overbanking into the creek and create a detention basin with a maximum capacity of one acre-foot. One of the five fill areas would function as an emergency spillway for flows. Bank protection energy dissipaters would also be placed at three other embankments to minimize erosion in anticipated high flow velocity flow areas.

An approximately 64-foot long, 18-inch diameter, drainage pipe with a flap-gate at its outlet would be installed upstream of Saratoga-Sunnyvale Road to provide return flows back into the creek at the downstream end of the detention basin. The elevation of the pipe entrance would be located at the lowest point possible in the detention basin, and energy dissipation measures would be implemented at the pipe outlet to prevent localized bed or bank scouring within Calabazas Creek.

Temporary fencing and signage would be placed around the proposed project staging and work areas. Detention basin work would take approximately one month and culvert modification would take two to three months. Although construction would primarily take place in the dry season, dewatering activities may be required prior to construction. The culvert modification would require temporary road closures. Lane closures are described in more detail under Section 4, under the heading “Traffic/Transportation.” After construction of the culvert, areas disturbed by the project along Saratoga-Sunnyvale Road would be restored to existing conditions.



Proposed Culvert Compared to Existing Culvert Entrance Dimensions

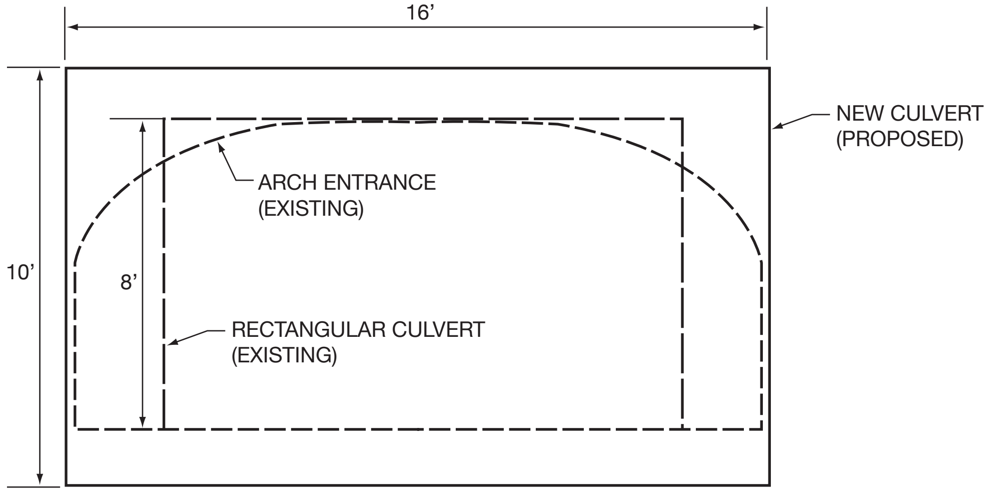


Figure 3
Proposed Modifications at the Saratoga - Sunnyvale Culvert
(Looking Downstream)

Union Pacific Railroad (UPRR) Bridge

Construction at the UPRR site would consist of removing the existing UPRR wooden bridge crossing over Calabazas Creek and replacing it with an approximately 7 foot high, 20 foot wide, and 38 foot long precast bridge. The existing UPRR wooden bridge opening is approximately 6 feet high, 13 feet wide, and 35 feet long and is currently used for the UPRR (single track).

Figure 4 presents the proposed modifications at the UPRR bridge. Rockfill would be installed along Calabazas Creek extending upstream and downstream to protect bridge embankments. The rockfill to be installed upstream of the UPRR bridge would be approximately 45 feet long, 25 feet wide, and 2 feet deep (83 CY). The dimensions of the rockfill to be installed downstream of the UPRR bridge would be approximately 20 feet long, 23 feet wide, and 2 feet deep (34 CY).

Before construction begins, the UPRR would remove a section of the railroad tracks and ballast. Dewatering activities or diversion of encountered water may be required at this site even though construction would occur during the dry season. The Stevens Creek pipeline turnout, owned by the SCVWD, will be shut off to limit flows in the creek before construction activities begin at this site.

Disposal

Construction activities associated with culvert replacement underneath Saratoga-Sunnyvale Road, and embankment and weir installation would require approximately 3,000 ~~cubic yards~~ ~~(~~CY~~)~~ of material to be excavated. Excavated material would mainly consist of excavated soil but could include concrete and debris. Suitable excavated soil would be reused onsite, and remaining excavated materials would be recycled or disposed of as appropriate. Excavation quantities for each project component within the detention basin and at the Saratoga-Sunnyvale Road culvert are identified in **Table 3**.

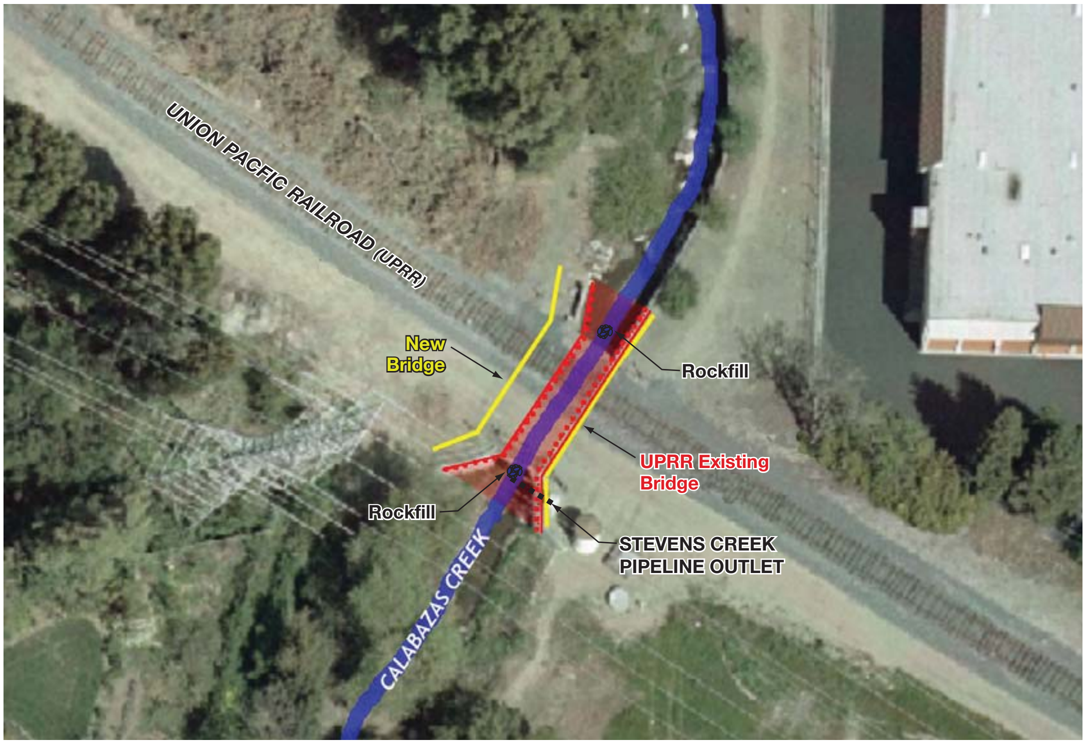
The existing UPRR bridge, as well as the existing concrete abutments and wingwalls, would be removed from the proposed project site. The new concrete bridge and abutment would be precast and trucked to the site, when needed. Wingwalls would be cast in place. The total volume of material to be removed from the UPRR site would be approximately 500 CY.

Staging and Work Areas

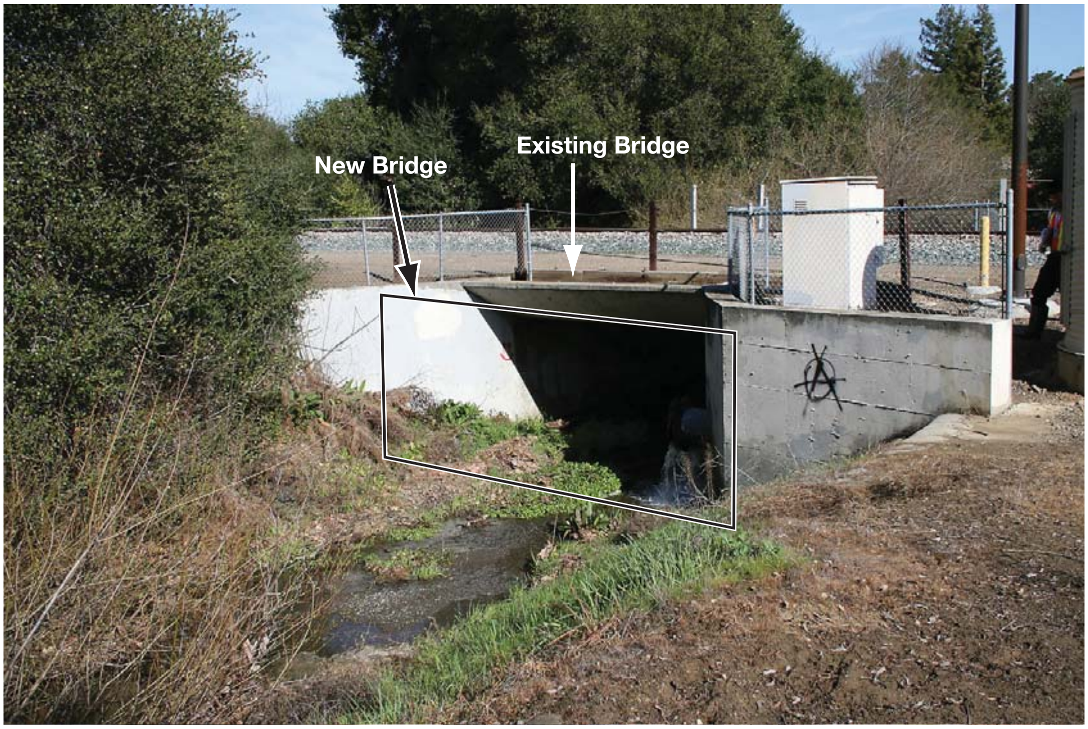
The entire low-lying area would be used as a work area and would be accessible via Saratoga-Sunnyvale Road (see Figure ~~3~~2). In the low-lying area, workers would be able to park 5 to 10 crew trucks or passenger vehicles and all equipment used for proposed improvements associated with the detention basin creation and culvert modification work. With appropriate authorization, three parking spaces at the adjacent shopping center parking lot would also be temporarily used to house a construction trailer.

For construction activities at the UPRR bridge replacement site, staging areas would be located along the UPRR/PG&E right-of-way. The staging area would be accessed from Saratoga-Sunnyvale Road at the railroad crossing. Equipment would enter the channel via an existing dirt access ramp located on the east bank of Calabazas Creek, upstream of the bridge. Workers would be able to park 5 to 10 crew trucks and/or passenger vehicles in the staging area. The staging area could also be used for stockpiling of materials.

Table 3 includes details on specific equipment that would be used for construction of the proposed project. Equipment would be in the channel during normal work hours throughout the construction activities associated with the UPRR bridge replacement. All equipment would be stored and maintained at the UPRR staging area when not in use.



Plan View



Looking Downstream to the UPRR Bridge

SOURCE: SCVWD, 2008

Figure 4

Proposed Modifications at the UPRR Bridge

Table 3 Summary of Construction Activities

Project Component	Construction Duration[a]	Number of Construction Workers	Construction Zone	Excavation and Fill Quantities	Construction Equipment	Construction Hours
Detention basin and culvert modification	Detention basin work: approximately 1 month Culvert modification: 2 to 3 months. All work would occur in the dry season, April 15th and October 15th.	10 to 20	The detention basin is proposed to be the main work area / construction access route	Excavation total is approximately 3,000 CY: 950 CY from existing culvert; 450 CY for overflow weir; 1,600 CY for embankments within detention basin area; 80 CY for trenched water, gas, and phone lines Fill total is approximately 4,200 CY: 40 CY for RCB backfill, ~~30~~22 CY for rockfill at RCB entrance, 330 CY for overflow weir, 3,800 CY for embankments within the detention basin area; less than 80 CY for trenched water, gas, and phone lines	• Backhoe • Compactor • Wheel Loader • Hydraulic Excavator • Portable Pumps • Generators • Crane • Trucks for material delivery • Hand Equipment • Directional Boring Machine	For most activities: Monday through Friday, 7:30 a.m. to 6:00 p.m. Night time work may occur for the culvert modifications (i.e. 6:00 pm to 7:00 am), but not for the detention basin work.
UPRR bridge replacement	Approximately 3 months; UPRR will require a 4-day construction window to replace existing tracks with new tracks and to construct new bridge. This 4-day construction period would be restricted to one weekend in the dry season, between April 15th and October 15th.	10 to 20	UPRR right-of-way	Excavation total is 500 CY Fill total is ~~60~~ 117 CY: ~~30~~ 83 CY for rockfill upstream of ~~for~~ UPRR and ~~30~~ 34 CY for rockfill downstream of the ~~surrounding~~ new UPRR bridge.	• Backhoe • Compactor • Jumping Jack • Wheel Loader • Hydraulic Excavator • Portable Pumps • Generators • Crane • Trucks for material delivery • Hand Equipment	For most activities: Monday through Friday, 7:30 a.m. to 6:00 p.m. For replacement of the existing UPRR bridge a four-day window of time is required (Saturday morning through Tuesday evening). Work may need to occur 24 hours per day to complete this work within this four-day timeframe.

[a] Construction at the detention basin and UPRR bridge would occur concurrently

SOURCE: SCVWD

Construction Access

Access to the construction sites would be limited to Saratoga-Sunnyvale Road and the UPRR railroad tracks accessed from Saratoga-Sunnyvale Road. Trucks would travel on designated haul routes – north on Saratoga-Sunnyvale Road to Interstate 280. No residential streets would be utilized for construction access purposes.

Construction Schedule

The proposed construction activities described above would occur during the dry season, from April 15th through October 15th, to minimize impacts on federally and state protected jurisdictional waters. The construction duration for activities within the detention basin and Saratoga-Sunnyvale culvert modification work would take about three to four months and approximately three months for work proposed at the UPRR bridge replacement. The proposed 6-month construction timeframe would allow the District to construct anytime within this 6-month timeframe, as long as Calabazas Creek is dry. Night time construction (6:00 pm to 7:00 am) may be needed for the Saratoga-Sunnyvale culvert and UPRR bridge.

Most of the construction would occur Monday through Friday, between 7:30 am and 6:00 pm. The removal and replacement of the existing UPRR bridge would occur during one 4-day weekend work period (Saturday morning to Tuesday evening; 24 hours a day). All bridge removal and replacement activities must be completed by UPRR and the contractor during the 4-day work period in order to avoid disruption of the train corridor. The SCVWD has coordinated with the UPRR to arrange a 4-day construction window for all work necessary to replace the existing tracks with new tracks on a new bridge. After all construction is completed, areas in the project area that were disturbed by construction activities will be replanted.

Operation and Maintenance

Operation and maintenance of the detention basin would be minimal. The detention basin area would require regular maintenance for its inlet / outlet work. The detention basin would also require cleanup after major storms but no additional maintenance activities would be required within the detention basin. Other typical maintenance activities that would be implemented include trash and debris removal, graffiti removal, vegetation (overgrowth) removal, erosion repair in natural sections, and sediment removal.

The new culvert underneath Saratoga-Sunnyvale Road would require regular monitoring and possible removal of debris during the wet season. Operation and maintenance activities associated with the new culvert at the UPRR bridge would be similar to that of the existing bridge.

This page intentionally left blank

Section 3 Environmental Setting

Project Location

The project sites are located along Calabazas Creek, between Saratoga-Sunnyvale Road and UPRR (Figure 1). Proposed activities associated with the detention basin and the culvert modifications at Saratoga-Sunnyvale Road would occur on land owned primarily by the SCVWD, UPRR, and the City of Saratoga. Additional areas on adjacent private property and Pacific Gas and Electric Company easement would be used for staging.

Physical Environment

Calabazas Creek has one major tributary within the proposed project area: Prospect Creek (Figure 1). Prospect Creek joins Calabazas Creek 250 feet downstream of the UPRR crossing. Within the proposed project area, the creek is predominantly a trapezoidal channel, with areas of concrete sacks, for erosion repair, as well as armored banks and beds at major road crossings. SCVWD's Stevens Creek Pipeline can be used to supplement creek flows at the UPRR crossing; however, the creek is generally dry in the project area throughout the dry season (April 15 through October 15).

The proposed project area is located in an area of mixed urban land uses that include residential and commercial uses. Four habitat/vegetation types occur in the project area: riparian (including riparian woodland, instream wetland, and aquatic habitat), non-native grassland, ruderal, and urban. Outside of the riparian corridor, the majority of upland habitat has been converted to urban land uses.

This page intentionally left blank

Section 4 Environmental Evaluation

Initial Study Checklist

In accordance with CEQA, the following Initial Study Checklist is an analysis of the project's potential environmental effects to determine whether an Environmental Impact Report is needed. Answers to the checklist questions provide factual evidence and SCVWD rationale for determinations of the potential significance of impacts resulting from the proposed project.

The Initial Study checklist shows that the proposed project may have potentially significant effects on aesthetics, biological resources, land use, noise, and traffic. Mitigation measures have been proposed for the project to reduce such effects to less-than-significant levels; and therefore, the proposed Mitigated Negative Declaration is consistent with CEQA Guidelines §15070. Descriptions of the BMPs and/or mitigation measures to be incorporated in the proposed project are included.

Background

1.	Project Title:	Calabazas Creek Flood Protection Project
2.	Lead Agency Name and Address:	Santa Clara Valley Water District 5750 Almaden Expressway San Jose CA 95118
3.	Contact Person and Phone Number:	Kurt Lueneburger (408) 265-2607, ext. 3055
4.	Project Location:	Calabazas Creek (City of Saratoga)
5.	Project Sponsor's Name and Address:	Santa Clara Valley Water District 5750 Almaden Expressway San Jose CA 95118
6.	General Plan Designation:	Commercial and Residential
7.	Zoning:	Commercial and Residential
8.	Description of the Project:	The Project proposes to provide 100-year flood protection to businesses and residents located along Calabazas Creek from Saratoga-Sunnyvale Road to the Union Pacific Railroad (UPRR). Project activities would include modification of two culverts located along Calabazas Creek and installation of weirs and embankments within a low-lying area.
9.	Surrounding Land Uses and Setting:	The proposed project site consists of, and is surrounded by, commercial and residential land uses.
10.	Other public agencies whose approval is required:	U.S. Army Corps of Engineers; California Regional Water Quality Control Board, San Francisco Bay Region; California Department of Fish and Game; City of Saratoga

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

✓	Aesthetics		Agricultural Resources		Air Quality
✓	Biological Resources		Cultural Resources		Geology / Soils
	Hazards & Hazardous Materials		Hydrology / Water Quality	✓	Land Use / Planning
	Mineral Resources	✓	Noise		Population / Housing
	Public Services		Recreation	✓	Transportation / Traffic
	Utilities / Service Systems	✓	Mandatory Findings of Significance		

DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	✓
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Kurt Lueneburger
Signature

12/08/09
Date

Kurt Lueneburger
Environmental Planner

Aesthetics

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		✓		

Discussion

a) No Impact. Because there are no scenic vistas—meaning recognized, valued public views of landscape scenery—within the project area, the project would not have an effect on a scenic vista. The project generally occurs in areas that are not visible from public viewpoints. Views toward the project area are largely from private residences and private right-of-ways and are partially screened by dense vegetation. Therefore the project would not result in an impact on a scenic vista.

b) No Impact. The State Scenic Highways program, a provision of the Streets and Highways code, was established to preserve and enhance the natural beauty of California. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such.

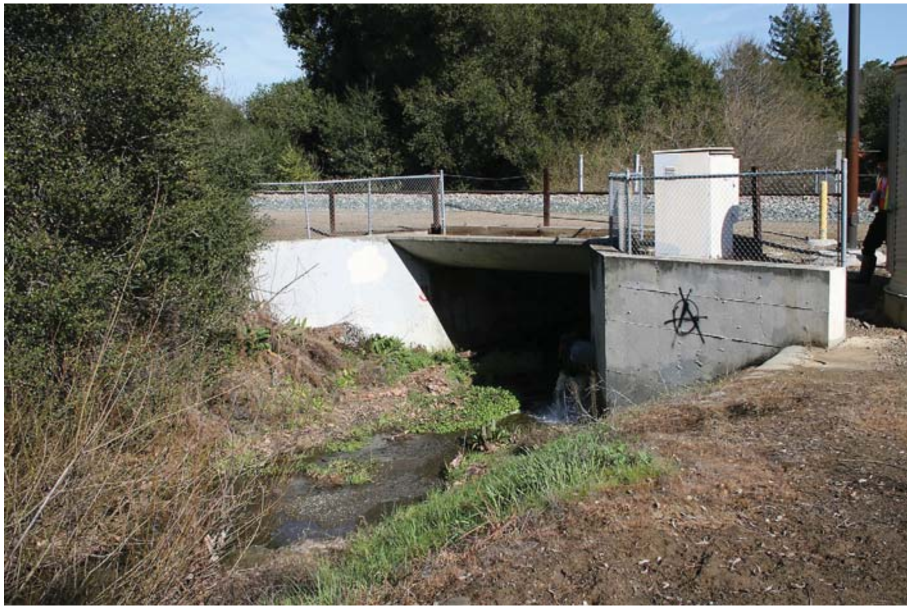
Within Santa Clara County, Highway 9 west of Highway 17 is a designated state scenic highway (Caltrans, 2008). This roadway is approximately 2.25 miles south of the project area, and the project would not be visible from this highway. Highway 280 north of Highway 17 and Highway 17 south of Highway 9 are eligible state scenic highways. However, these roadways are located approximately 3 miles and 5 miles respectively from the project area and views of the project are not available from these roadways.

There are no Designated or Eligible State Scenic Highways within the project viewshed; therefore the project would not affect scenic resources within a state scenic highway.

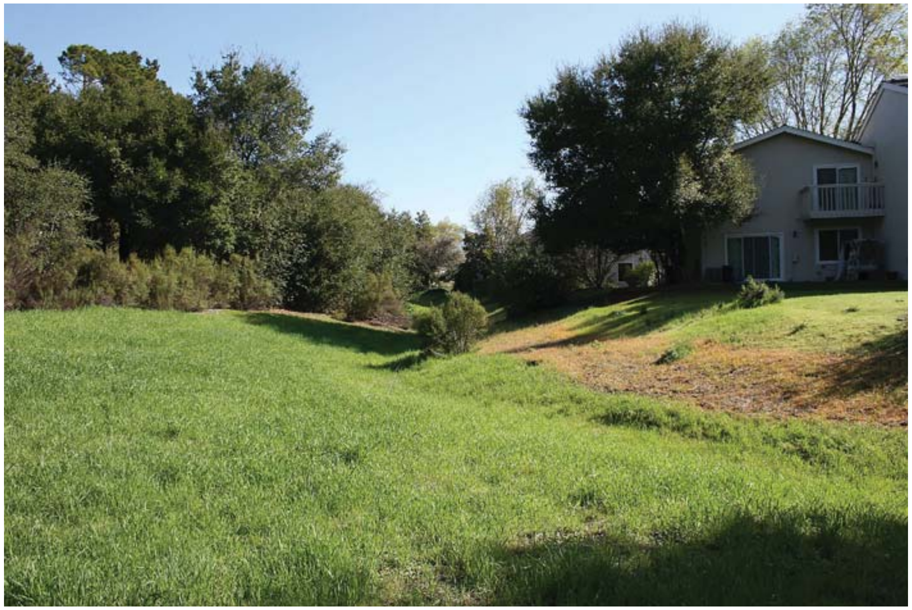
c) Less than Significant Impact.

Operations Period

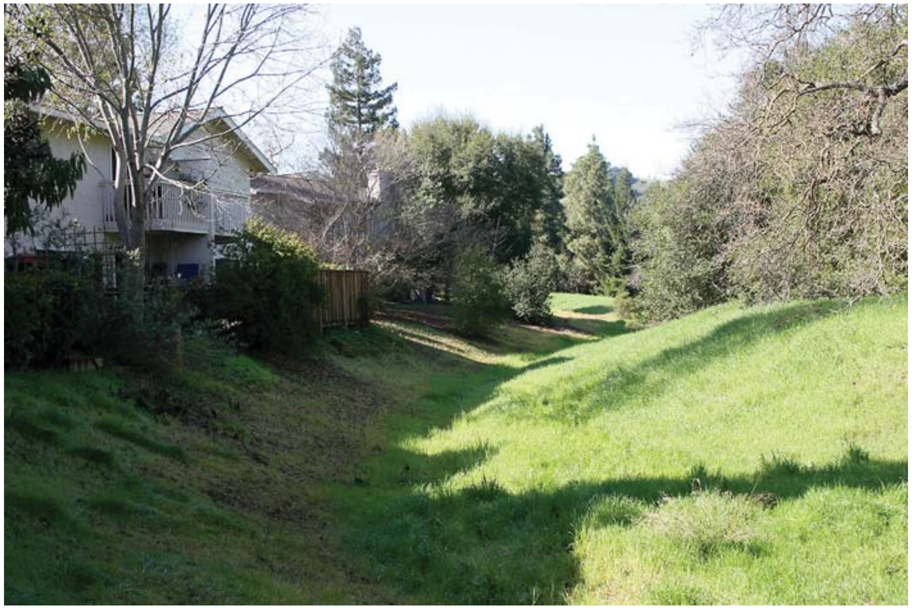
Four photographs, presented on **Figure 5** (Photos 1 through 4), show representative views of the project area. These photographs are provided to illustrate the following discussion of potential visual effects on the existing landscape setting. The photo viewpoint locations are shown on **Figure 6**. As outlined in the project description, the project proposes improvements for two culverts and an existing low-lying area located along Calabazas Creek between Saratoga-Sunnyvale Road and the UPRR.



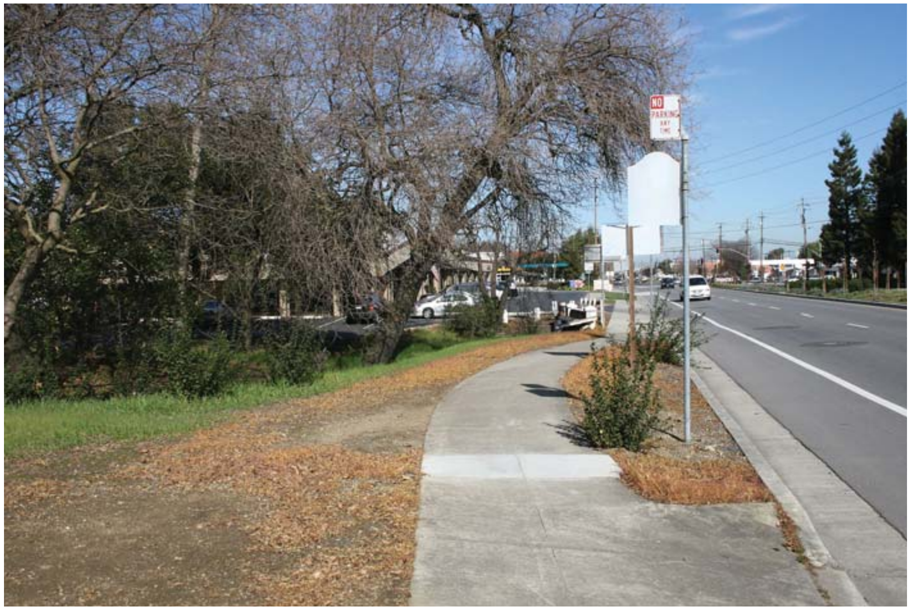
1. View from south of the UPRR bridge looking north (downstream)



2. View from work area behind Oak Creek Lane looking north (downstream)



3. View from work area behind Oak Creek Lane looking south (upstream)

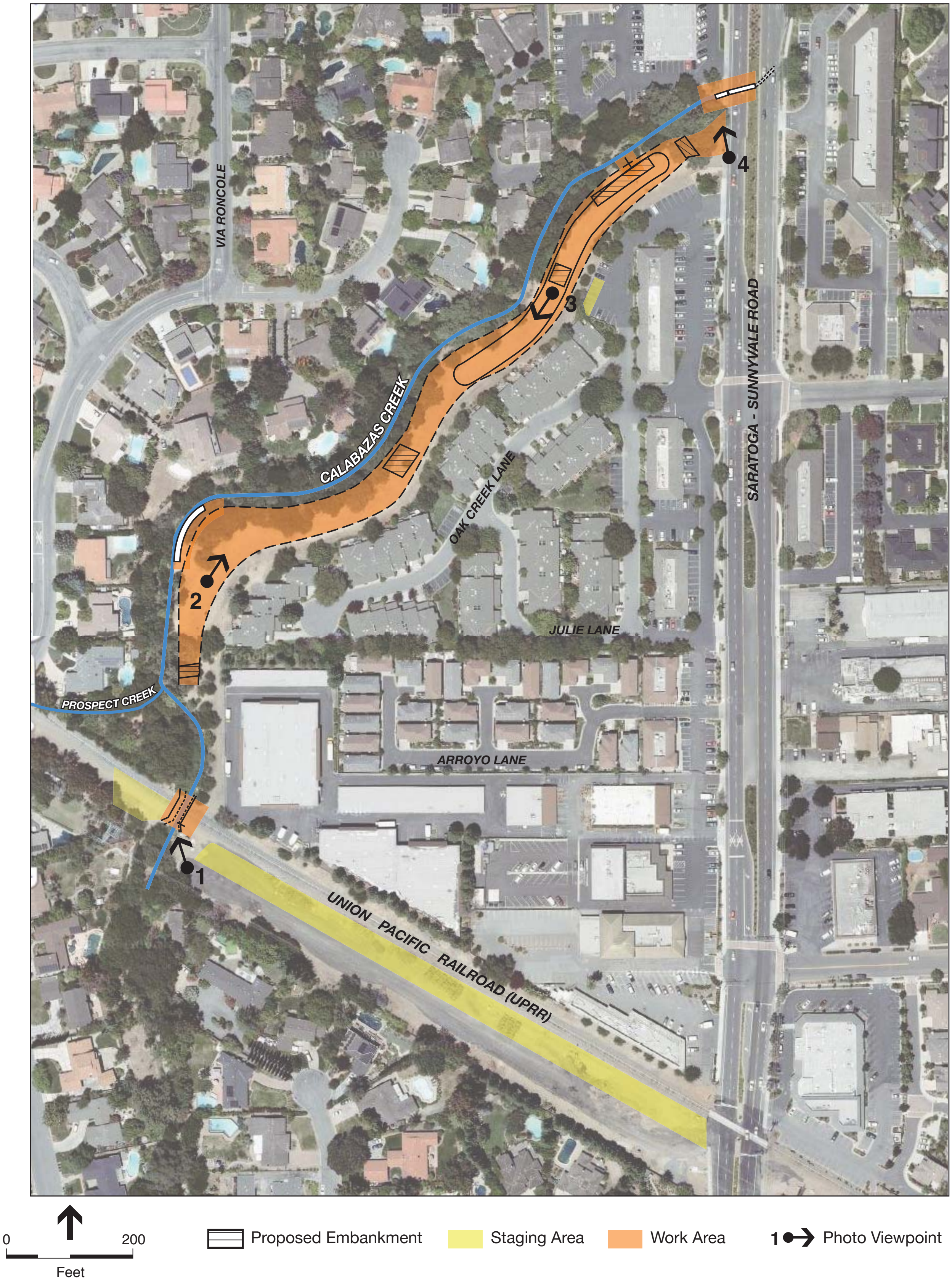


4. View from Saratoga-Sunnyvale Road looking north

SOURCE: Environmental Vision

Calabazas Creek Initial Study . 205516

Figure 5
Visual Character Photos



SOURCE: ESA; Environmental Vision

Calabazas Creek Initial Study/Mitigated Negative Declaration . 205516

Figure 6
Photo Viewpoint Map

Improvements proposed for the UPRR bridge include replacing the existing bridge with a larger bridge. The existing bridge is visible from a private, unpaved railroad access road to the south of the UPRR bridge while views from the north are generally screened by dense riparian vegetation (Figure 5-Photo 1). This project element represents an incremental change in the size of an existing feature which would not be noticeable from public or residential viewpoints after construction.

Proposed culvert improvements under Saratoga-Sunnyvale Road would replace an 80-foot section of the existing culvert with a larger culvert. In addition, an area of rockfill would be installed in the channel for 20 feet upstream of the culvert. The culvert and stream bed are not generally visible from public locations, such as those along Saratoga-Sunnyvale Road, and the stream area near this improvement is heavily vegetated (Figure 5-Photo 4). Additionally, the drainage pipe and detention basin would be barely discernable from a limited area of a residential parking lot and would not be visible from a public vantage point.

The improvements along the detention basin area include installing a 65-foot long earthen weir along the eastern edge of Calabazas Creek as well as filling some openings in the existing berm which separates the creek from the detention basin. Views of the weir may be available from back yards of some nearby residences; however, mature riparian vegetation in the area partially or completely screen many views (Figure 5-Photos 2 and 3). The detention basin is partially visible from the rear of a limited number of residences on Oak Creek Lane. Photo 2, taken from the detention basin area near the proposed weir location, illustrates that some residences directly face the detention basin. Currently this grassy area appears to be used informally for picnicking and recreation by some of the residents. Photo 3, taken further north, shows that other residences have rear fences along the detention basin. In this area, fences and vegetation at the rear yards of residences largely screen residential views of the creek. Given the limited visibility of the project and the presence of landscape screening, these effects would be a minor incremental change that would not substantially affect views or potential use of the detention basin. Furthermore, after construction, disturbed areas will be planted as described in the Biological Resources discussion below. Therefore, the project would not adversely affect the existing visual character of the site and surroundings.

Construction Period

Construction activity includes a limited amount of grading and use of heavy machinery. The overall visual effect of construction in this area of the project will be minor and temporary. As previously mentioned, areas that are disturbed by construction activities would be replanted (see the Biological Resources discussion below). These effects are considered to be less than significant.

d) Less than Significant with Mitigation Incorporated. Although no new sources of light are proposed as part of the project, construction activities associated with replacement of the existing UPRR bridge would involve night-time work for up to four working days (24-hour working days). Use of night-time lighting during such activities could result in adverse visual effects to residences and businesses located within the vicinity. As described under Mitigation Measure NO-5 (see Noise analysis for details), adjacent residences would receive notification 30 days prior to construction at the UPRR bridge. Under this measure, these residences would also have the option to stay at a hotel throughout this 4-day construction period; thus impacts related to night-time lighting would be less than significant with implementation of Mitigation Measure (MM) NO-5. Furthermore, implementation of MM AE-1 (night-time lighting) would minimize visual impacts to a less-than-significant level.

Mitigation Measures

MM AE-1: To the extent possible, the construction contractor will ensure that lighting used during nighttime construction is directed downward and oriented such that no light source is directly visible from neighboring residential areas.

MM NO-5: (See Noise analysis for details)

Agricultural Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				✓

Discussion

a) – c) No Impact. The project site is located within and adjacent to Calabazas Creek. The project site is surrounded by residential and commercial uses. The site is designated by the California Department of Conservation as Urban and Built-up Land (CDC, 2004). The site does not include active agricultural uses, nor is the site zoned for agricultural use or a Williamson Act contract (City of Saratoga, 2007). The project would not have any affect upon existing agricultural operations because there are none in the vicinity of the project.

Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute to an existing or projected air quality violation?			✓	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			✓	
d) Expose sensitive receptors to substantial pollutant concentrations?			✓	
e) Create objectionable odors affecting a substantial number of people?			✓	

Discussion

a) No Impact. The proposed flood control project would not conflict with the applicable air quality plan. The proposed project is located within the San Francisco Air Basin for which there are two approved air quality plans. The first is the Carbon Monoxide (CO) Maintenance Plan for maintaining the federal air quality standards for CO. The other is the *Bay Area 2005 Ozone Strategy* (BAAQMD, 2006) for attaining the state of California eight and one-hour ozone standards.

The Bay Area has been a federally designated CO maintenance area since 1994 and since that time concentrations of CO have been reduced significantly, primarily as a result of reformulated gasoline in California. The highest 8-hour concentrations of CO monitored at the nearest (San Jose) air quality station have decreased from 4.5 parts per million (ppm) in 2002 to 4.0 ppm in 2003, 3.0 ppm in 2004, 3.1 ppm in 2005 and 2.9 ppm in 2006, all substantially less than the 9.0 ppm standard for 8-hour average concentrations (BAAQMD, 2008).

The Bay Area is designated as a non-attainment area with respect to state of California 1- and 8-hour ozone standards. As such, the Bay Area Air Quality Management District (BAAQMD) has adopted the Bay Area 2005 Ozone Strategy. The 2005 Ozone Strategy explains how the Bay Area plans to achieve these goals with regard to ozone, and also discusses related air quality issues of interest including our public involvement process, climate change, fine particulate matter, the Air District’s Community Air Risk Evaluation program, local benefits of ozone control measures, the environmental review process, national ozone standards and photochemical modeling.

The proposed project would result in construction-related air emissions from operations of equipment and trucks during a temporary period of approximately 6 months (April 15th to October 15th). Idling of diesel trucks is restricted to 5 minutes by the Section 2485 of the

California Code of Regulations (CCR) adopted by the California Air Resources Board (CARB) in July of 2004. There would be no on-going stationary or mobile source emissions that would result from the project once it is constructed.

In its CEQA Guidelines BAAQMD states "*Construction equipment emits carbon monoxide and ozone precursors. However, these emissions are included in the emission inventory that is the basis for the regional air quality plans, and are not expected to impede attainment or maintenance of ozone or carbon monoxide standards in the Bay Area*" (BAAQMD, 1999). Therefore the project would not conflict with or obstruct implementation of the applicable air quality plan. The project would result in no impact on air quality plan implementations.

Greenhouse Gas Emissions and Assembly Bill 32

Gases that trap heat in the atmosphere are called greenhouse gases. The potential for increases in greenhouse gases to substantially contribute to global climate change is a world wide concern. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there is tremendous disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a direct link between increased emission of so-called greenhouse gases and long-term global temperature. What greenhouse gases have in common is that they allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation and warm up the air. Both natural processes and human activities emit greenhouse gases. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature; however, emissions from human activities such as electricity generation and motor vehicle operations have elevated the concentration of greenhouse gases in the atmosphere. This accumulation of greenhouse gases has contributed to an increase in the temperature of the earth's atmosphere and contributed to global climate change. The principal greenhouse gases are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H_2O). Carbon dioxide is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different greenhouse gases, greenhouse gas emissions are often quantified and reported as CO_2 equivalents (CO_2E). In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of greenhouse gas would be progressively reduced, as follows:

- By 2010, reduce greenhouse gas emissions to 2000 levels;
- By 2020, reduce greenhouse gas emissions to 1990 levels; and
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), which requires California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions).

The proposed project would contribute to global climate change as a result of emissions of greenhouse gases, primarily CO_2, emitted by trucks and earthmoving equipment associated with construction activities. As of the date of this analysis neither BAAQMD, CARB, nor any federal agency has formally implemented an emission rate criterion for CO_2E emissions for the purposes of identifying a significant contribution to global climate change. Nor are there rules or regulations in place from CARB, BAAQMD, State Clearinghouse or other resource agencies applicable to the proposed project that define what is a “significant” source of greenhouse gas emissions, and there are no applicable facility-specific greenhouse gas emission limits or caps.

Consistent with its General Governance Policy GP-1.5 and Ends Policies E-1 and E-2, SCVWD is striving to achieve carbon neutrality as soon as practicable. To that end, SCVWD is developing a Climate Action Plan establishing an implementation program with GHG reduction guidelines for water district operations and GHG mitigation measures for district projects. Once adopted, the Climate Action Plan’s measures will also apply to project activities.

In the interim, the California Air Pollution Control Officers Association (CAPCOA) has prepared a white paper that considers options for evaluating and addressing greenhouse gas emissions under CEQA (CAPCOA, 2008). This document identifies 11 different significance threshold possibilities that could be used to assess the significance of impacts relative to greenhouse gas emissions. The analysis detailed below applies Threshold 2.3 of the CAPCOA white paper, titled the CARB Reporting Threshold for stationary combustion sources that emit more than 25,000 metric tons of CO_2E /yr. This threshold was selected out of the 11 separate possibilities because it is quantifiable, is directly connected to AB32 requirements and is at neither of the more extreme ends of possible significance thresholds (i.e., any increase as substantial or GHG emissions assessment as speculative impact).

Project-related emissions of greenhouse gases were calculated using the URBEMIS2007 model of the CARB as well as the General Reporting Protocol of the California Climate Action Registry, and latest global warming potentials of the International Panel on Climate Change. Estimated project-related greenhouse gas emissions are presented in **Table 4**. These emissions estimates assume the use of construction equipment, construction worker commute trips and haul trips for excavated material and do not consider any post construction maintenance which may be needed. Construction of the proposed project would result in greenhouse gas emissions of approximately 349 tons of CO_2E/yr (equivalent to 384 metric tons of CO_2E/yr). The proposed project would not be classified as a major source of greenhouse gas emissions, as emissions would be about 1.5 percent of the lower reporting limit, which is 25,000 metric tons of CO_2E/yr. The proposed project would not represent an on-going burden to the regional concentration of GHG. Therefore, the proposed project is considered to be consistent with AB 32 and associated state GHG reduction planning. The proposed project would result in no impact to applicable air quality plans.

Table 4 Estimated Emissions of Greenhouse Gases from Proposed Project

Emission Source	**Emissions (tons CO_2E per year)**			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Exhaust Emissions from excavation equipment	234.26	0.38	–	234.64
Exhaust emission from worker commute trips	89.80	0.29	5.64	95.73
Exhaust emissions from haul truck transport	17.12	0.05	1.08	18.25
Total Operational GHG Emissions	341.18	0.72	6.72	**348.62**

b) Less than Significant. The proposed project would result in construction-related air emissions from operation of equipment during a temporary period of approximately 6 months. There would be no on-going stationary or mobile source emissions that would result from the project once it is constructed.

Construction activities would result in the emission of reactive organic gases (ROG) and oxides of nitrogen (NOx), both of which are precursors to ozone formation, as well as CO and particulate matter (both PM10 and PM2.5) from equipment exhaust, construction-related vehicular activity, and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NOx from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during project construction. BAAQMD CEQA Guidelines recognize that construction equipment emit ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans. Therefore construction emissions of ROG and NOx are not expected to impede attainment or maintenance of ozone standards in the Bay Area (BAAQMD, 1999). The impact regarding ROG and NO_x would therefore be less than significant.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. Construction activities may result in quantities of dust, and as a result, local visibility and PM10 concentrations may be adversely affected on a temporary and intermittent basis during the construction period. In addition, the fugitive dust generated by construction would include not only PM10 but also larger particles that would fall out of the atmosphere within several hundred feet of the site and that could result in nuisance-type impacts. The BAAQMD CEQA Guidelines do not specify construction significance thresholds for the Bay Area because the BAAQMD encourages the implementation of control measures that would mitigate construction-related air quality impacts and obviate the need to establish significance standards.

The SCVWD has adopted a Best Management Practices Handbook that identifies air quality related measures for compliance with BAAQMD dust control strategies (BMP AQ-1). Incorporation of BMP AQ-1 into project design will reduce project-related emissions of dust and PM-10 to a less than significant level per BAAQMD CEQA Guidelines.

c) Less than Significant. The project is located in the San Francisco Bay Area Air Basin which is designated as a non-attainment area for ozone and particulate matter. As discussed in the response to (a), BAAQMD does not consider construction-related emissions of ozone precursors from construction operations to represent a threat to maintenance of the state and federal ozone standards. Emissions of ROG and NOx from cut and fill activities were calculated using the BAAQMD's emission factors for cubic yard of excavated material. Based on an excavation/fill rate of 63 cubic yards per day[2], daily equipment exhaust emissions of ROG, NOx and PM-10 would be 1.27, 5.86 and 0.30 pounds per day respectively. Fugitive dust emissions from material handling would add an additional 0.44 pound per day of PM-10.

Project emissions would also occur from truck hauling of excavated materials. Assuming a maximum of 10 truck trips per day (commensurate with the Transportation analysis), truck emissions were calculated using EMFAC2007 emission factors of the California Air Resources Board. A trip length of 25 miles was applied to emission factors for heavy duty diesel trucks.

---

[2] 63 cubic yards per day is based on excavation and fill total of approximately 7,760 CY spread out over approximately 123 work days (approximately 6 months)

Project –related daily truck emissions would be 5 pounds per day of CO, 0.65 pound per day of ROG, 8 pounds per day of NOx and 0.3 pound per day of PM-10.

Emissions from construction worker commute trips would generate an additional 13.6 pounds per day of CO, 1.4 pound per day of ROG, 1.2 pounds per day of NOx and 2.0 pounds per day of PM-10. A total of all project daily emissions are presented in **Table 5**. As can be seen from the Table, emissions of ROG, NOX and PM-10 are all less than the BAAQMD CEQA significance threshold of 80 pounds per day, and emissions of CO are less than the CO-specific significance threshold of 550 pounds per day. Consequently, the proposed project would not be considered to contribute a considerable net increase in particulate matter or ozone precursors.

Table 5 Project Emissions

	Criteria Air Pollutant Emissions (lbs/day)			
Source	**ROG**	**NOx**	**PM10**	**CO**
Excavation equipment exhaust	1.27	5.86	0.30	19.07
Excavation fugitive dust	--	--	0.44	--
Truck trips[a]	0.65	7.58	0.27	5.06
Worker commute trips[b]	1.39	1.21	1.96	13.58
Total	3.31	14.65	2.97	37.71
Significance threshold	80	80	80	550

[a] Emissions estimates were generated using the Air Resources Board’s EMFAC2007 emission factors for heavy duty diesel trucks and a trip length of 25 miles.

[b] Emissions estimates were generated using the Air Resources Board’s URBEMIS 2007 model for the San Francisco Bay Air Basin, and assume a default vehicle mix.

d) Less than Significant. There are approximately a dozen single family residences adjacent to the west bank of the creek in the detention basin and multi-family housing on Oak Creek Lane adjacent to the detention basin on the east side of the creek. As discussed in the response to (c), project-related emissions would be temporary and less than BAAQMD CEQA significance thresholds. The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

e) Less than Significant. Some excavation sites may have sediment that is rich in organic matter decaying in an anaerobic condition, which generates assorted malodorous gases, such as reduced sulfur compounds. The SCVWD Best Management Practices include BMP AQ-4 to ensure that materials will be handled in a manner that avoids impacting sensitive receptors. BMP AQ-4 would be incorporated into the project design to avoid significant objectionable odor impacts.

Best Management Practices

BMP AQ-1: Bay Area Air Quality Management SCVWD Basic Dust Control Measure (all construction sites)

BMP AQ-4: Avoid Stockpiling Potentially Odorous Materials

(See Appendix A for details)

Biological Resources

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, U.S. Fish and Wildlife Service, or NOAA - Fisheries?		✓		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means?		✓		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓
g) Adversely affect previously established mitigation site(s) for other project(s)?				✓

Discussion

a) Less than Significant Impact with Mitigation Incorporation.

Special-status[3] flora and fauna records and survey data were obtained from California Department of Fish and Game's (CDFG's) California Natural Diversity Database (CNDDB)

---

[3] The term "special-status species" includes those that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as Threatened or Endangered, but designated as Rare or Sensitive on the basis of adopted policies and expertise of state resource agencies or organizations, or policies adopted by local agencies such as counties, cities, and special districts to meet local conservation objectives.

(CDFG, 2009), California Native Plant Society (CNPS) Electronic Inventory (CNPS, 2009), the U.S. Fish and Wildlife Service (USFWS, 2009), SCVWD biologists (SCVWD, 2005 and SCVWD, 2006a), and biological literature on the region.

Special-status Plants

With the exception of the immediate riparian corridor overstory, vegetation in the project area is highly disturbed as evidenced by the general lack of native shrubs and herbaceous species throughout the project area. Upland habitats have been greatly diminished throughout the region through past grazing and agricultural activities as well as more recent urbanization. Native perennial grasslands, scrub, and chaparral communities have all been extirpated throughout the project area.

CNDDB (CDFG, 2009) and CNPS (2009) report twelve special-status plant species with records in the project vicinity. However, there is a low potential of these special-status plant species to occur in the project area because (1) habitat in the project area is highly disturbed and/or modified, as described above, and (2) none of these plants were identified within the project footprint during either SCVWD rare plant surveys (SCVWD, 2006a) or ESA surveys in 2007 (ESA, 2007).

Special-status Fisheries

Calabazas Creek is channelized in its lower reaches before joining with Guadalupe Slough and discharging to San Francisco Bay. Calabazas Creek does not appear to support steelhead/rainbow trout due to unsuitable habitat conditions, the intermittent/recharge-based hydrology, barriers that prevent upstream migration, and the absence of steelhead observations since the early 1970s. A similar conclusion was reached in SCVWD's Initial Study/Mitigated Negative Declaration (IS/MND) for the *Reconstruction of Bollinger Road Bridge over Calabazas Creek* project (SCVWD, 2003). Calabazas Creek historically may have supported steelhead but no longer does (SCVWD, 2001). Due to the apparent absence of threatened steelhead or any other special-status fish species in Calabazas Creek within the project area, there are no regulatory requirements for the proposed project related to fisheries resources.

Special-status Wildlife

The project area is in a highly disturbed habitat and surrounded by development, making it unsuitable for most special-status wildlife species. The CNDDB reports eleven special-status wildlife species with records in the Cupertino and San Jose West USGS 7.5 minute topographic quads (CDFG, 2009), but many of these lack suitable habitat in the project area. In particular, a protocol-level habitat assessment for California red-legged frog (*Rana draytonii*) in 2007 determined that, due to the lack of suitable habitat, this species is absent from the project area (ESA, 2007).

Five special-status species have a moderate potential to occur in the project area: Cooper's hawk (*Accipiter cooperii*) (California Watch List species), white-tailed kite (*Elanus leucurus*) (California Fully Protected species), pallid bat (*Antrozous pallidus*) (California Species of Special Concern), Townsend's big-eared bat (*Corynorhinus townsendii*) (California Species of Special Concern), and hoary bat (*Lasiurus cinerus*) (California Special Animal).

ESA biologists observed a bird nest in the Union Pacific Railroad (UPRR) bridge during their site visit in April 2007, and birds could also nest in the large trees or mud banks within the project area, or on/in buildings in the project vicinity. Construction activities will occur between April 15th and October 15th, which is within the breeding bird season (February 1st through August 31st), and therefore construction noise could negatively impact potential breeding or migratory birds in the project vicinity. The Federal Migratory Bird Treaty Act (16 USC, Sec. 703

Supp. I, 1989) and Section 3513 of the California Fish and Game Code prohibit the killing, possession, or trading of migratory birds. In addition, breeding birds are protected under Section 3503 of the Code, and raptors are protected under Section 3503.5. Finally, Section 3800 of the Code prohibits the taking of non-game birds, which are defined as birds occurring naturally in California that are not resident game birds, fully protected species, or migratory game birds. The SCVWD has established Biological Resources Best Management Practices (BMPs) BI-8 - Migratory Bird Surveys, BI-9 – Migratory Bird Nesting Prevention to protect migratory birds, and BI-10 – Migratory Bird Nesting Exclusion Devices (SCVWD, 2008b). The complete BMPs are listed in Appendix A.

Roosting bats could also be impacted through proposed flood control activities. Bats may roost in nearby trees, buildings, or culverts, and could be adversely impacted by project activities. The California Fish and Game Code, Section 4150, states that non-game mammals, including rare and common bat species, may not be taken or possessed, except as otherwise provided in the California Fish and Game Code or in accordance with adopted regulations. Impacts to nesting birds and roosting bats would be less than significant with the implementation of the Biological Resources BMPs listed in the preceding paragraph, and incorporation of Mitigation Measures BI-11 and BI-12, discussed below.

b) Less than Significant Impact with Mitigation Incorporation. A mixed riparian woodland dominates the Calabazas Creek corridor. Coast live oak (*Quercus agrifolia*) is the dominant tree species along this portion of creek. Other tree species include valley oak (*Quercus lobata*), California buckeye (*Aesculus californica*), western sycamore (*Platanus racemosa*), and willow species (*Salix* spp.) Understory is sparse and predominantly non-native along the creek banks where riparian canopy is dense; common species are smilo grass (*Piptatherum miliaceum*), common horsetail (*Equisetum arvense*), fumatory (*Fumaria officinalis*), and California blackberry (*Rubus ursinus*). The detention basin is dominated by non-native annual grasses, including Italian ryegrass (*Lolium multiflorum*), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), cut-leaved geranium (*Geranium dissectum*), and California burclover (*Medicago polymorpha*).

Embankment and weir creation, drainage pipe installation, culvert replacement, and rockfill installation will require riparian vegetation removal. Excavation activities may also cause damage to the roots of adjacent riparian vegetation. Tree trimming may be required to provide clearance to construction vehicles and equipment. With the exception of wetlands, which are discussed below, there are no other sensitive communities located within the project area.

The CDFG is authorized under the California Fish and Game Code, Sections 1600–1616 to develop mitigation measures and enter into a streambed alteration agreement (SAA) with applicants proposing a project that would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there are fish or wildlife resources; CDFG's jurisdiction extends to the outer dripline of riparian vegetation along these rivers/creeks/streams. A SAA will be required for this project, as there will be impacts to Calabazas Creek and its riparian habitat.

Mitigation Measure BI-14, in addition to the terms and conditions required by permits from the USACE, RWQCB, and CDFG, will reduce impacts to riparian habitat to a less than significant level.

c) Less than Significant Impact with Mitigation Incorporation. Federally protected wetlands, as defined by Section 404 of the CWA, are present in the project area and include instream wetlands within Calabazas Creek and a seasonal wetland where the detention basin is proposed. In addition, Calabazas Creek is considered "other waters of the U.S." as defined by Section 404 of CWA. Submittal and verification of a wetland delineation of these potentially jurisdictional features will be required for the project.

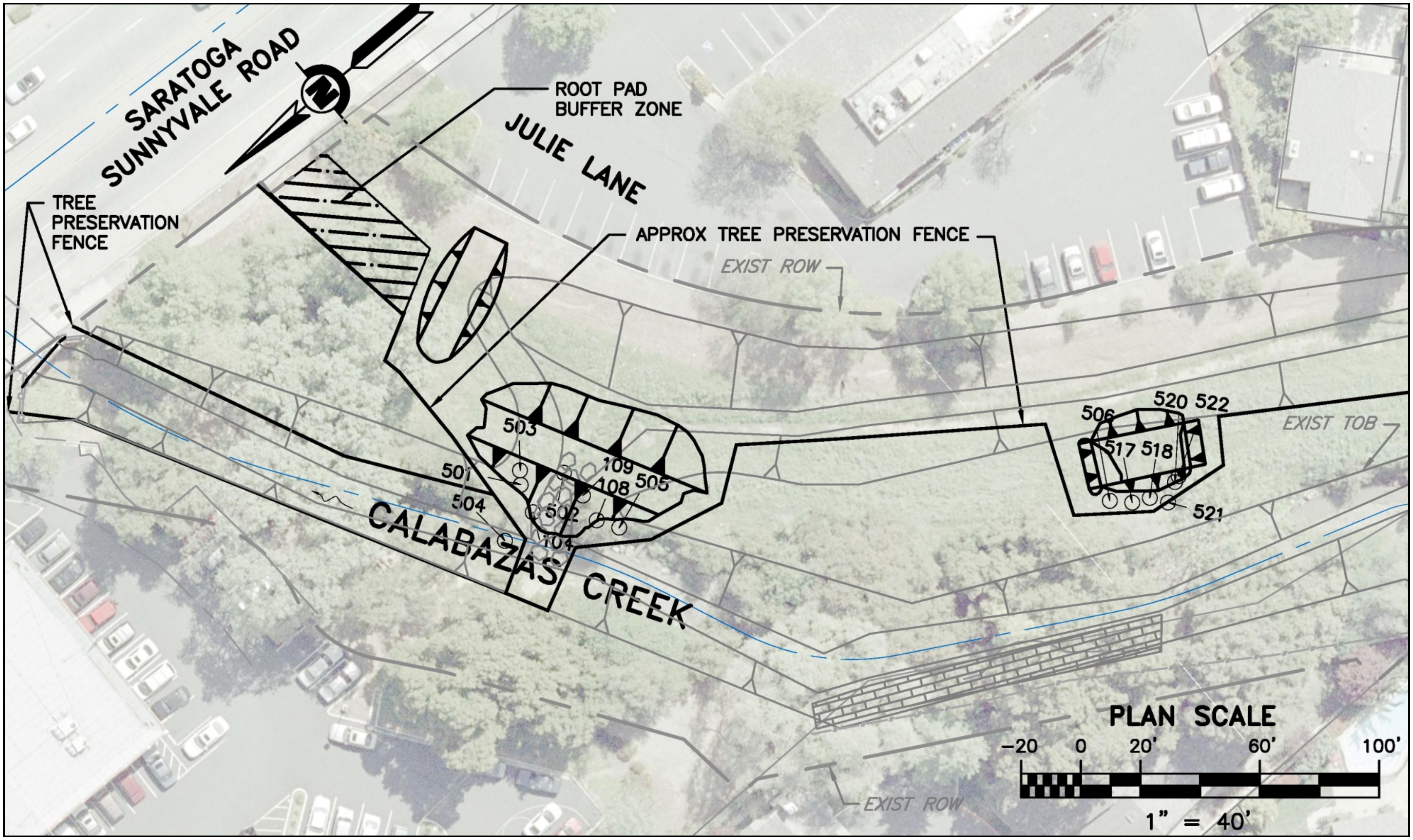
Many of the proposed project elements within Calabazas Creek (e.g., culvert and bridge construction, rockfill installation, and weir creation) will result in placement of fill or structures within wetlands and other waters of the U.S., which are under the jurisdiction of USACE and RWQCB according to Sections 404 and 401 of the CWA, respectively. These activities will result in temporary and permanent impacts to these features. In addition, ground disturbance as a result of embankment and weir creation, drainage pipe installation, culvert replacement, and construction access will expose topsoil to erosion; this could cause soil runoff into wetlands and other waters of the U.S., which would temporarily impact these features. Section 404 and 401 permits would be required from the USACE and RWQCB for these project components. Interim measures to protect the unvegetated areas from erosion may be required.

Project activities may result in improved creek function and a net gain in jurisdictional features, because replacement of the existing bridge and modification of the Saratoga-Sunnyvale Road culvert will decrease the flow velocities and associated incising of Calabazas Creek banks, and widen and increase the floodplain both upstream and downstream of the culvert.

Project activities will occur during the dry season, April 15th through October 15th to minimize impacts to federally and state protected jurisdictional waters. Mitigation Measure BI-13 and SCVWD BMP WQ-41 will further reduce impacts to wetlands to a less than significant level.

d) Less than Significant Impact with Mitigation Incorporation. Calabazas Creek is an urban stream bordered by mixed riparian woodland habitat, and may act as a wildlife corridor through a predominantly developed landscape. The proposed project activities are not expected to result in any permanent impacts to this corridor, although wildlife may temporarily avoid using the area during construction. Breeding birds and bat maternity colonies could be present in the project footprint. Temporary impacts to wildlife movement corridors and nursery sites would be reduced to less than significant levels with the implementation of the SCVWD's BMPs BI-8 - Migratory Bird Surveys, BI-9 - Migratory Bird Nesting Prevention, and BI-10 – Migratory Bird Nesting Exclusion Devices, as well as Mitigation Measures BI-11 and BI-12.

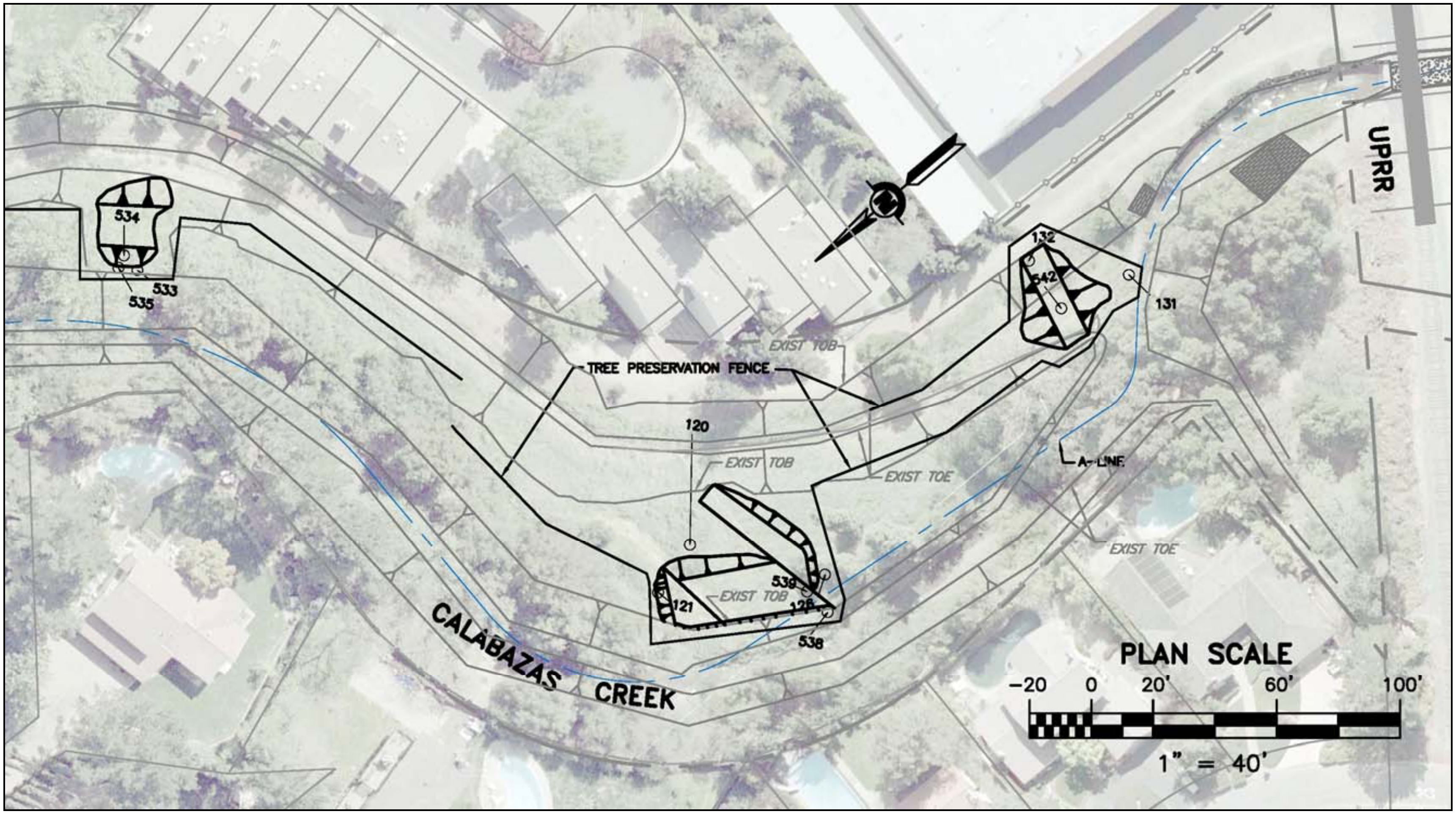
e) Less than Significant Impact with Mitigation Incorporation. Twenty-five trees ranging in size from 1 inch to 22 inches in diameter at breast height (dbh) (measured at 4.5 feet above the ground surface) are ~~have been~~ identified for potential removal to construct the overflow weir, drainage pipe, and embankments (**Figures 7 and 8; Table 6**). An additional 36 trees of varying species and sizes are ~~located~~ adjacent to the construction zone and may incur indirect impacts associated with disturbance within the tree dripline (ESA, 2009). Several of these trees meet the criteria of a "protected tree" by the City of Saratoga. The Saratoga City Code (Article15-50) defines a "protected tree" to be any of the following: (a) any native tree having a dbh of six inches or greater; (b) any other tree having a dbh of ten inches or greater; (c) any street tree, as defined in Section 15-50.020 of the Municipal Code, regardless of size; (d) any heritage tree, as defined in Subsection 15-50.020 of the Municipal Code, regardless of size; (e) any tree required to be planted or retained as a condition of any approval granted under the Municipal Code; and (f) any tree required to be planted as a replacement, as provided by the Municipal Code. ~~In addition, trees and other vegetation in the planted median strip on Saratoga-Sunnyvale Road, which are "street trees" that are protected under the City of Saratoga Municipal Code, will be removed to maintain at least three lanes of traffic during construction activities, and replaced after the completion of project construction activities. The SCVWD will obtain a tree removal permit from the City of Saratoga for any protected trees (e.g., street trees such as those in the Saratoga-Sunnyvale Road median, native trees with a diameter at breast height (dbh) of 6 inches or more, or non-native trees with a dbh of 10 inches or more) that will be removed for the proposed project.~~ Impacts to protected trees will be reduced to less than significant levels with the implementation of Mitigation Measure (MM) BI-14.



Note: The depicted tree preservation fence will be adjusted by the project arborist to meet the exclusion zone requirements.

Figure 7

Tree Removal Map – Northern Project Area



Note: The depicted tree preservation fence will be adjusted by the project arborist to meet the exclusion zone requirements.

Figure 8
Tree Removal Map – Southern Project Area

Table 6 Proposed Tree Removal

Tree Identification Number[a]	Description (Common name, dbh[b])	Tree Identification Number[a]	Description (Common name, dbh[b])
104	Coast live oak, 12”	506	Coast live oak, 4”
108	Valley oak, 12”	517	Coast live oak, 2”
109	Coast live oak, 15”	518	Coast live oak, 3”
120	California black walnut, 22”	520	Coast live oak, 1”
121	Redwood, 13”	521	Coast live oak, 5”
126	Redwood, 20”	522	Coast live oak, 1”
131	Sycamore, 9”	533	Pine, 2”
132	Coast live oak, 11”	534	Coast live oak, 1”
501	Coast live oak, 2”	535	Coast live oak, 1”
502	Coast live oak, 4”	538	Coast live oak, 2”
503	Valley oak, 1”	539	Coast live oak, 3”
504	Coast live oak, 7”	542	California black walnut, 4”
505	Valley oak, 2”		

[a] Refer to Figures 7 and 8 for locations of identified trees.

[b] dbh: diameter at breast high (diameter of tree in inches measured at approximately 4.5 feet above ground surface).

f) and g) No Impact. The project area is not covered by any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. In addition, there are no previously established mitigation sites within the project area.

Best Management Practices

BMP BI-8: Migratory Bird Surveys

BMP BI-9: Migratory Bird Nesting Prevention-Vegetation Clearing

BMP BI-10: Migratory Bird Nesting Exclusion Devices

BMP WQ-41: Stormwater Pollution Prevention

(See Appendix A for details)

Mitigation Measures

MM BI-11: The following measures will reduce impacts to native nesting birds to a less than significant level:

(1) In the event that an active nest of a protected bird species is discovered in the construction area, or in adjacent areas considered to have the potential to be disturbed by construction, a protective buffer zone will be established around the nest as follows:

- ~~A 20-foot radius buffer zone will be established around the nest of any non-raptor ground-nesting bird.~~
- A 50-foot radius buffer zone will be established around any non-raptor nests ~~in shrubs, trees, on structures, or on equipment~~.

- A 250-foot radius buffer zone will be established for hawks, owls, herons, and egrets.

These buffer zones may be adjusted in consultation with applicable resource agencies, depending on the type of project activity, the species of bird nesting, whether the nest would have a direct line of sight to construction activities, local topography and vegetation, and the existing noise and human disturbance levels. No construction activity of any kind will be permitted in the buffer zone until a qualified biologist determines that the young have fledged or otherwise abandoned the nest.

MM BI-12: The following measures will reduce impacts to bat roosts to a less than significant level:

(1) Prior to the start of proposed project ground clearance and construction activities, a qualified biologist will conduct surveys of potential bat roosting habitat, such as large trees and culverts, within the work footprint. Surveys will take place no more than 14 days prior to the onset of site preparation and construction activities with the potential to disturb bats or their habitat.

(2) If active maternity roosts are found they will be avoided, and a no-disturbance buffer acceptable in size to CDFG will be established around the maternity roost.

(3) If special-status bats are found in the work footprint and avoidance is not possible, a qualified biologist will consult with CDFG to identify appropriate protection measures.

(4) If a non-breeding, non-special-status day roost is found in a culvert or in trees scheduled to be removed, the individuals will be safely evicted by a qualified bat biologist (a biologist holding a Memorandum of Understanding with CDFG, allowing the biologist to handle and collect bats), using methods appropriate for the roost type and bat species present. Exclusion methods may include installing exclusion devices (using materials such as plastic bird netting [1.25x1.25 cm], polyvinyl chloride (PVC) pipes, or even socks with the toe cut out, that allows bat egress but not ingress), or creating holes in the roost to alter the airflow and temperature so that it is no longer suitable for the bats.

MM BI-13: The following measure will reduce impacts to wetlands:

(1) Impacts to wetlands will be avoided by establishing an exclusion zone with protective fencing around the outer edge of the wetlands. Exclusion fencing will be brightly colored, and erected under the supervision of a qualified biologist prior to the start of construction activities and maintained throughout the construction period. No construction activity, equipment, or materials will be permitted within this exclusion zone.

MM BI-14: The following measures will reduce impacts to riparian habitat and protected trees:

(1) For those trees that can be avoided by project activities, a Tree Protection Zone (TPZ) will be established around the tree(s). The TPZ will be defined according to the International Society of Arboriculture recommendations or, if greater, as the radius of the crown of the tree plus 5 feet. The TPZ will be marked with brightly colored exclusion fencing, and this fencing will remain in place for the duration of project activities. Construction personnel will be prohibited from entering the TPZ for the duration of project construction.

Construction activities, vehicle operation, material and equipment storage, and other surface-disturbing activities will be prohibited within the TPZ.

(2) For those trees that cannot be avoided by project activities, a certified arborist will monitor construction in the TPZ. Tasks of the arborist will include, but not be limited to: pruning trees in accordance with the pruning guidelines of the International Society of Arboriculture prior to construction to improve tree structure and allow access without damage to branches; supervise excavation to limit damage to tree roots; and cutting tree roots as necessary to avoid impacts to standing trees.

(3) The SCVWD will obtain a City of Saratoga tree removal permit for trees designated as "protected trees," that are removed for the project. These removed trees will be replaced with native species. Native "protected trees" will be replaced at a 3:1 ratio, and non-native "protected trees" will be replaced at a 2:1 ratio, unless otherwise specified in the City of Saratoga tree permits.

(4) ~~The SCVWD will replace protected habitat and trees that are removed as a result of project activities according to the terms of applicable local, state, and federal permits.~~ The SCVWD will revegetate areas where project activities result in a loss of ground cover, as soon as feasible. Revegetation will include a palette of species native to the area. The SCVWD will develop and implement a mitigation and monitoring plan (MMP) to ensure that the disturbed areas are returned to an equivalent or improved level of predisturbance habitat quality. The MMP will be developed in the context of the federal and state permitting processes under the Clean Water Act and California Fish and Game Code, and will include success criteria, monitoring, and reporting requirements as specified by the permitting agencies.

Cultural Resources

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			✓	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	
d) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

Discussion

a–d) Less than Significant Impact. The staff at the California Historical Resources Information System Northwest Information Center at Sonoma State University conducted a record search of the proposed project vicinity on February 26, 2007 (File No. 06-1291) and May 8, 2007 (File No. 07-1737). Information was gathered on previous archaeological surveys and recorded sites within ¼-mile of the Calabazas Creek between Comer Debris Basin and Miller Avenue. Results of the record search indicate that 13 previous studies have been carried out within or immediately adjacent to Calabazas Creek and 27 studies have been conducted within a ¼-mile of Calabazas Creek between Comer Debris Basin and Miller Avenue (ESA, 2008). Detailed survey information is presented in the Calabazas Creek Project Opportunities and Constraints Analysis (ESA, 2008). One archeological site is located within ¼-mile of Calabazas Creek and Miller Avenue. The proposed flood improvements are approximately 2 miles south of Miller Avenue along Calabazas Creek between UPRR and Saratoga-Sunnyvale Road. Therefore, there would be no impact to this archaeological site due to the proposed project.

Native American Consultation

The Native American Heritage Commission (NAHC) was contacted by letter on February 21, 2007 requesting information on sacred lands within the Project study area, and for a contact list of interested, local tribal representatives. A response was received from the NAHC on February 27, 2007, noting, “A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate Project area.” The letter also provides a list of Santa Clara County Native American Contacts. WSA sent letters to each of the listed contacts on March 2, 2007. One phone response was received on April 9, 2007 by Ms. Ann Marie Sayers of the Indian Canyon Mutsun Band of Costanoan, expressing concern that prehistoric archaeological sites were located within the project area. WSA shared the negative results of the record search with Ms. Sayers and noted her concern about the potential for as yet undiscovered archaeological resources in the area (ESA, 2008). On May 9, 2007, follow up calls were placed to each listed contact soliciting additional information on any sacred lands in the project area (ESA, 2008). As a result of this process no additional information was gathered.

Much of the project area is located on land that was developed first for agriculture in the late 19th century, and in the last fifty years has grown rapidly into thickly settled residential area. Despite historic and modern disturbances however, the project is located in an area known to have been used by Native American populations for habitation, trade, and subsistence; this combined with its proximity to a ready source of water increases the possibility that prehistoric cultural resources may exist beneath the surface within the project area. Implementation of the SCVWD’s Best Management Practice CU-2 would reduce potential impacts to cultural resources.

A Department of Parks and Recreation Primary Record Report (DPR 523 Form) for the UPRR bridge was completed in December 2008. According to UPRR records the bridge was built in 1921 and was built to carry dual tracks over Calabazas Creek, but now only has one track. The UPRR bridge does not meet the criteria for listing on the National Register of Historic Places for the following reasons (WSA, 2008):

- the bridge is not associated with a single event or pattern of events or historic trends;
- the bridge is not considered to be associated with persons significant in our past;
- the bridge is neither the work of a master, nor does it possess high artistic values; and
- the bridge is unlikely to yield information important to history,

As with the potential for prehistoric cultural resources, there is no surficial or archival data to suggest the presence of historic resources, and their presence is considered unlikely. Nevertheless, ground-disturbing activities have the potential to directly impact unidentified cultural resources. Should unidentified resources be encountered, SCVWD BMPs for Archaeological Finds and Burial Finds (CU-2 and CU-3) would reduce impacts to a less-than-significant level.

Although the record search and survey of the project area failed to indicate the presence of human remains within the vicinity of the proposed project, the subsurface excavation required for construction of the project could potentially disturb or destroy previously undiscovered human remains from both prehistoric and historic time periods, if they are present. Implementation of BMPs CU-2 and CU-3 would require the contractor to halt work immediately and notify a consulting archaeologist in the event that archaeological artifacts are encountered and to notify the County Coroner if any burial site is found during construction. With these measures in place, impacts on undocumented archaeological resources and burial finds are expected to be less than significant; thus no mitigation is required.

Best Management Practices

BMP CU-2: Archaeological Finds

BMP CU-3: Burial Finds

(See Appendix A for details)

Geology and Soils

Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
b) Strong seismic ground shaking?			✓	
c) Seismic-related ground failure, including liquefaction?			✓	
d) Landslides?				✓
e) Would the project result in substantial soil erosion or the loss of topsoil?			✓	
f) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
h) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

Discussion

a) No Impact. The project site is not located within or near an Alquist-Priolo Earthquake Fault zone and would have a very low potential for fault rupture. The nearest active fault to the project site is the San Andreas and the Hayward faults, both of which are approximately 8 miles from the project site. Although fault rupture is not necessarily restricted to areas located within an Alquist-Priolo Earthquake Fault Zone, the potential for rupture to occur at the project site is considered very low. The project would have no impact.

b) Less than Significant Impact. The San Francisco Bay Area is considered to be a very seismically-active region. The project site is located in an area subject to significant groundshaking from an earthquake along any of the active faults located in the region including the San Andreas and the Hayward Fault, the closest faults to the project site. However, the proposed project does not include any structures intended for human occupancy. Both of the proposed concrete box culverts would be constructed of reinforced concrete that would be able to withstand significant groundshaking without significant damage. Current engineering practices, construction materials and industry standards would ensure that significant damage in the event of an earthquake would be minimized. Although, some damage might be experienced in the event of a significant earthquake event, the structures are not inhabited and damage would be considered to be fiscally insignificant.

c) Less than Significant Impact. The California Seismic Hazards Mapping Act was enacted in 1990 to protect the public from the effects of strong ground shaking, liquefaction,[4] landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. In general, the area between the creekbanks of Calabazas Creek is mapped as a Seismic Hazard zone for liquefaction (CDC, 2008). Therefore, technically the project would occur within a Seismic Hazard Zone for liquefaction as designated by the California Geological Survey. However, as stated above, the proposed project does not include new construction of any habitable structures. Therefore, the proposed project would not be subject to the requirements of the Act. Regardless, the construction of the proposed improvements using industry standard construction materials and design would limit the potential damage from liquefaction or other seismic related ground failure to less than significant levels.

---

[4] Liquefaction is the process by which saturated, loose, fine-grained, granular, soil, like sand, behaves like a dense fluid when subjected to prolonged shaking during an earthquake.

d) No Impact. The project area has little topographic relief and is gently sloping towards the east. The proposed project would not expose people or structures to substantial adverse effects involving landslides.

e) Less than Significant Impact. As discussed above, the SCVWD would conduct all construction activities in accordance with SCVWD's BMPs (SCVWD, 2008b) which contain standard operation procedures and practices used to reduce erosion and sedimentation. Implementation of measures such as conducting as much work from the top of the bank as possible (BMP WQ-1), use of appropriately-tired vehicles (BMP WQ-2), soil stockpile practices (BMP WQ-5), and timing of construction work within the dry season along with other hydrology and water quality BMPs would reduce the potential for soil erosion or loss of topsoil. Therefore, the potential impact related to erosion or loss of topsoils would be less than significant. See also discussion of water quality impacts in the *Hydrology and Water Quality* section.

f) Less than Significant Impact. As mentioned above, the project site is relatively flat and not susceptible to landslides. Although the project site is located in a Seismic Hazard Zone for liquefaction, no habitable structures are proposed under the project. In addition, the proposed modifications and changes to the flood protection improvements would not significantly change the loading on underlying soils. Therefore, the impact is less than significant.

g) Less than Significant Impact. The proposed project does not include the construction of any significant structures that could be significantly damaged by expansive soils, if present. Regardless, the proposed project would be constructed according to industry standard geotechnical practices which typically include measures that mitigate the potential damage from expansive soils. Therefore, the project would have a less than significant impact.

h) No Impact. No septic tanks or alternative wastewater systems are proposed for the project.

Best Management Practices

BMP WQ-1:	Conduct Work from Top of Bank
BMP WQ-2:	Use of Appropriately-Tired Vehicles in Stream Bottoms
BMP WQ-5:	Soil Stockpiles

(See Appendix A for details)

Hazards and Hazardous Materials

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?			✓	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	

Discussion

a) and b) Less than Significant Impact. Once constructed, the proposed project would not transport, use, or dispose of any hazardous materials. During construction, some limited quantities of hazardous materials such as fuels, oils, hydraulic fluids, adhesives and other substances will be used at the project sites. However, the SCVWD will implement BMPs to prevent any of these hazardous materials from being released to the public or entering Calabazas Creek through routine transport, use, and disposal. These BMPs are SCVWD standard operation procedures used to reduce potential impacts on the public and the environment. The SCVWD BMPs employed at the project site during construction would include HM-9, HM-10, HM-11, HM-12, HM-13, and HM-14, which are designed to minimize the potential for accidental spills and provide measures to contain them if they do occur. Additionally, the implementation of BMPs identified in the Storm Water Pollution Prevention Plan (SWPPP) (see hydrology and water quality section) would contain similar measures to prevent any accidental spills of hazardous materials from construction equipment. Therefore, the potential impact is considered less than significant.

c) Less than Significant Impact. The proposed project site is located within a quarter mile of the Little Tree Montessori Preschool located at 20512 Manor Drive, Saratoga CA. However, as mentioned above, once constructed, the proposed project would not transport, use or dispose of any hazardous materials. Therefore, considering that the hazardous materials will be handled in accordance with BMPs such as HM-12, HM-13, and HM-14, the potential for exposure to the Little Tree Montessori School would be considered less than significant.

d) No Impact. The project sites are not listed on the Government Code Section 65962.5 environmental databases and therefore would have no impact on the public or environment (SWRCB, 2008 and DTSC, 2008).

e) and f) No Impact. The project sites are not located within two miles of any airport or private airstrip and therefore would not result in any related impact.

g) No Impact. Once constructed, the proposed project would not result in any change to any access roads and thus would not alter any evacuation routes or emergency response or action plans. Temporary staging areas used during construction would not interfere with any emergency response or emergency action plans. Therefore, the potential impact related to emergency plans would be less than significant.

h) Less than Significant Impact. The project sites are located within a residential area that is relatively wooded though is not considered wildlands. The project area does not lie within a fire hazard zone (City of Saratoga, 2009a). The proposed project includes no habitable structures and would only be temporarily accessed by workers during construction. The potential for these workers to be at risk of wildland fires is considered low especially with implementation of the SCVWD BMPs which call for flammable materials to be handled appropriately (BMP HM-12). The potential impact from wildland fires is therefore less than significant.

Best Management Practices

BMP HM-9: Vehicle and Equipment Cleaning

BMP HM-10: Vehicle and Equipment Fueling

BMP HM-11: Vehicle and Equipment Maintenance

BMP HM-12: Hazardous Materials Management

BMP HM-13: Spill Prevention

BMP HM-14: Spill Kit Location

(See Appendix A for more details).

Hydrology and Water Quality

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	Beneficial Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			✓		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓		
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.				✓	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			✓		
f) Otherwise substantially degrade water quality?			✓		
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓	
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows?			✓		
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			✓		
j) Inundation by seiche, tsunami, or mudflow?					✓

Discussion

a) and f) Less than Significant Impact. Project implementation could adversely affect the water quality of Calabazas Creek if project construction or operation resulted in discharge of dewatered groundwater during excavation, increased erosion and sedimentation, or an accidental release of construction related chemicals. Project construction would occur over a six month period (April 15th to October 15th) during the dry season. During construction, the SCVWD would implement SCVWD BMPs to prevent sediment from entering Calabazas Creek via bank slopes, channel bottom, and access roads. The SCVWD BMPs for protecting water quality during grading and excavation include WQ-1, WQ-2, WQ-4, WQ-5, WQ-6, WQ-12, WQ-14, WQ-15, WQ-18, WQ-26, WQ-27, WQ-40, and WQ-41 (SCVWD, 2008b). These BMPs are SCVWD standard operation procedures used to protect water quality. Implementation of SCVWD BMPs would prevent any accidental spills of hazardous materials from construction equipment into Calabazas Creek. See *Hazards and Hazardous Materials* section for more details on BMPs related to hazardous materials (HM-12, HM-13, and HM-14).

The SCVWD will adhere to applicable measures in the SCVWD Urban Runoff Management Plan, which is a part of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPP). The SCVURPP is regulated by the RWQCB under NPDES Order numbers 01-024 and 01-119. Project operation and construction would also comply with existing water quality policies and orders. Since project construction activities would disturb more than one acre of soil, the SCVWD would prepare a SWPPP and file a Notice of Intent with the State Water Resources Control Board (SWRCB) to obtain coverage under the SWRCB National Pollutant Discharge Elimination System (NPDES) General Permit (Order 99-08-DWQ). If the proposed project requires a Clean Water Act Section 404 permit, the SCVWD would be responsible for obtaining water quality certification (under Section 401 of the Clean Water Act) from the RWQCB.

b) Less than Significant Impact. The proposed project would not use any groundwater supplies as a water source. The Stevens Creek pipeline periodically releases raw water into Calabazas Creek at the upstream end of UPRR. Downstream of UPRR, Calabazas Creek has been used for artificial recharge of the Santa Clara Subbasin. The proposed project would not increase impervious surfaces or reduce groundwater infiltration. Therefore, the impact to groundwater supplies would be less than significant.

c) Less than Significant Impact. The project would result in an alteration of the existing drainage pattern of the Calabazas Creek reach between UPRR and Saratoga-Sunnyvale Road. The project would include replacement and enlargement of the existing Saratoga-Sunnyvale Road culvert and the existing UPRR bridge. Larger culvert capacities would likely result in larger peak flow volumes downstream (e.g., less water would be backed-up or allowed to flow overbank onto the floodplain or local roads); this could result in new or exacerbated bank instability, bed instability, and erosion problems within or downstream of the project reach. Sediment transport modeling (SCVWD, 2006c) of elements similar to those proposed predicted that there would not be substantial changes (e.g., erosion or deposition) in the bed elevation of Calabazas Creek.

The project objective is to increase capacities related to flow events that occur very infrequently (e.g., events that have between a ten percent and one percent chance of occurring in any given year) (SCVWD, 2006b). It is likely the slightly smaller and more frequent flood events that do most of the “damage” over time with respect to bed and bank erosion. It has been demonstrated in numerous field and laboratory examples that, typically, the 1.5- to 2-year event, and possibly up to the 10-year event in highly ephemeral systems, transport the most sediment over time in gravel-bedded streams (Leopold, 1994; Knighton, 1998; Biedenharn et al, 2000); this sediment is derived from both the channel bed and banks. In addition, a number of major bank erosion sites have been previously identified by the SCVWD in the vicinity (e.g., middle reaches of Calabazas Creek) of the proposed project. Thus, considerable bank erosion has been and will likely continue to be an ongoing issue, and the existing attenuation of large peak flows in the project area has not seemed to alleviate what is a watershed-scale problem regarding bed and bank erosion processes. Furthermore, increasing the capacity of the existing culverts would likely reduce the flow pressure (and reduce the change in hydraulic head) for particular flood events. In other words, because of the pressure and hydraulic head effect (e.g., large flows being “piled up” and forced through small openings), a given flood discharge (e.g., 10-year event) would likely produce higher velocities under the existing condition. Therefore, the proposed project may actually reduce flow velocities immediately downstream of the project site and decrease the risk of bank erosion over a limited range of flood events.

As part of the proposed project, extreme flood events (e.g., 100-year event and larger) would also be attenuated to a small degree by temporary storage of water in the proposed detention basin. The project design includes adding a weir that connects to the upstream end of an existing low-lying area and a drainage pipe that connects to the downstream end of the detention basin, as well as adding 20 feet of rockfill upstream of the new section of the Saratoga-Sunnyvale Road culvert. The weir would be designed to divert overflow into the detention basin during a 100-year (or larger) storm event. After the storm, the water would gradually flow back to the creek.

As previously discussed under Biological Resources, implementation of Mitigation Measure BI-13 would require the SCVWD to recontour and revegetate areas affected during construction, and to replant the detention basin. Implementation of these measures would minimize impacts to wetlands and riparian habitats as well as erosional impacts.

For the reasons outlined above, the proposed project would have a less than significant impact on erosion or siltation due to the alteration of the course of Calabazas Creek.

d) Beneficial Impact. The principal goal of the proposed project is to provide 100-year flood capacity by modifying the channel in the project area; this will be accomplished primarily by increasing the capacity of existing culverts. In turn, the proposed project would result in larger peak flow volumes being conveyed downstream of the project sites during flood events larger than the 10-year peak discharge. The project would also provide additional storage capacity in the proposed detention basin for flood flows larger than a 100-year event. Thus resulting in a beneficial impact upon on- or off-site flooding.

e) Less than Significant Impact. Other than the construction- and erosion-related water quality impacts discussed above in *a)* and *f)*, there would be no substantial additional sources of polluted runoff. The potential impact of the proposed project with respect to runoff volumes, storm drain capacities, and additional polluted runoff is considered less than significant.

g) Beneficial Impact. The proposed project does not include moving or constructing houses or any other type of residence. The existing flood risks are shown on the FEMA map for the area (FEMA, 2007). The project would alleviate the flood risk for existing residences. Therefore, impacts related to placing housing in a 100-year flood hazard area would be beneficial.

h) No Impact. The proposed project would increase the conveyance capacity of existing structures (e.g., culverts), provide additional flood storage capacity, and reduce flooding into the commercial and residential areas that surround Calabazas Creek. The project would not include construction of structures that would impede flood flows. The proposed overflow weir would redirect flood flows into the detention basin to prevent flooding nearby. The project would redirect flood flows such that the extent of flooding is reduced, but would have no impact with respect to impeding flood flows.

i) Less than Significant Impact. The proposed project would not expose people or structures to a significant risk due to flooding from storms, levees, or dams. The principal goal of the proposed project is to alleviate existing flooding issues and provide 100-year flood capacity between UPRR and Saratoga-Sunnyvale Road. The project would have a less-than-significant impact with respect to exposing people or structures to flooding.

j) No Impact. The proposed project would not expose people or structures to a significant risk due to seiche, tsunami, or mudflow.

Best Management Practices

BMP WQ-1: Conduct Work from Top of Bank

BMP WQ-2: Use of Appropriately-Tired Vehicles in Stream Bottoms

BMP WQ-4: Handle Sediments so as to Minimize Water Quality Impacts

BMP WQ-5: Soil Stockpiles

BMP WQ-6: Stabilized Construction Entrance

BMP WQ-12: Diversion/ Bypass Water at Non-tidal Sites

BMP WQ-14: Seeding

BMP WQ-15: Groundwater Management

BMP WQ-18: Site Maintenance and Cleanup

BMP WQ-26: Silt Fence Culvert Entrance Protection

BMP WQ-27: Discharge Surface Protection – Armoring

BMP WQ-40: Water Pollution Control

BMP WQ-41: Stormwater Pollution Prevention Plan

(See Appendix A for details)

Land Use and Planning

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		✓		
c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				✓

Discussion

a) No Impact. The proposed project would occur within and adjacent to Calabazas Creek. Most of the proposed project is located within the existing SCVWD's right-of-way along the creek. Addition of flood improvements to the existing creek would not constitute a physical barrier to established or contemplated communities. Thus, implementation of the proposed project would not result in the division of an established community.

b) Less than Significant With Mitigation Incorporation. Adjacent land to the project area is designated by the City of Saratoga Land Use Element of the General Plan as primarily *Medium Density Residential* and *Multi-family Residential* uses (City of Saratoga, 2007). Additionally, near Saratoga-Sunnyvale Road there are *Commercial Retail* uses adjacent to Calabazas Creek. The project would not interfere with any existing parks or trails (City of Saratoga, 1991b). The project could disturb or require removal of newly landscaped areas along Saratoga-Sunnyvale Road which is underway as a result of the Saratoga-Sunnyvale Road Gateway Improvement Master Plan adopted in 2003 (City of Saratoga, 2007). Removal of these newly landscaped areas could result in a potentially significant impact. However, with implementation of MM LU-1, any removed/disturbed vegetation would be replanted and restored once construction is complete, resulting in a less than significant impact.

Proposed activities to occur within the detention basin and along Saratoga-Sunnyvale Road would occur on land owned by the SCVWD and City of Saratoga. The work area within the detention basin would be within the SCVWD right-of-way. Culvert modifications along Saratoga-Sunnyvale Road would require a traffic plan or a traffic control permit from the City of Saratoga because a portion of this road would be used during construction (see Figure 2). Because construction is temporary and the road would be brought back to its pre-construction state, impacts to land use would be less than significant. See the *Transportation and Traffic* section for additional information regarding impacts to traffic.

While proposed activities at the UPRR bridge would be consistent with the existing land use designation, a temporary construction easement would need to be obtained from UPRR. Furthermore, a permit to allow 24-hour work during one 4-day period would also need to be obtained from UPRR. In addition to coordinating with UPRR, the SCVWD would apply to the

City of Saratoga's Community Development Department for a permit variance to the City's noise ordinance. The City's noise ordinance requires construction to be restricted to the hours of 7:30 am to 6:00 pm (City of Saratoga, 1988). See the *Noise* section for additional information regarding impacts to noise. Because construction is temporary and localized, and would be brought back to its pre-construction state, impacts to local land use policy would be less than significant.

c) No Impact. The project site is not located within an adopted habitat conservation plan or natural community conservation plan.

Mitigation Measures

MM LU-1: The SCVWD will replant and restore any disturbed landscaped areas within the Saratoga-Sunnyvale Road public street right-of-way once construction is complete.

Mineral Resources

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				✓

Discussion

a) and b) No Impact. There are no mineral resources identified by the State of California Resources Agency Department of Conservation at the project site (Stinson et al., 1983). The project site is located in and adjacent to Calabazas Creek. Calabazas Creek is surrounded by urban and residential development and is unsuitable for mineral extraction.

Noise

Would the project result in:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?		✓		
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			✓	
c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

Discussion

a) Less than Significant Impact with Mitigation Incorporation. The project area is within the jurisdiction of the City of Saratoga. The City of Saratoga regulates noise through enforcement of its municipal code and through implementation of Policies contained in the Noise element of the General Plan.

Chapter 7-30 of the City of Saratoga's municipal code addresses noise control within the City of Saratoga (City of Saratoga, 1991a). Subpart 050 of the ordinance prohibits single noise events in residential areas more than 6 dBA greater than the existing ambient noise level. Subpart 060 of the ordinance establishes exceptions to this restriction. These exceptions include residential construction and construction in commercial and office zoning districts and restrict construction equipment noise to 83 dBA at a distance of 25 feet from the source. This subpart also restricts construction noise to between the hours of 7:30 a.m. and 6:00 p.m. on weekdays and between 9:00 a.m. and 5:00 p.m. on Saturdays. Construction activity is prohibited on Sundays and weekday holidays unless authorized by the Community Development Director.

Most of the construction activity would occur between the hours of 7:30 a.m. and 6:00 p.m. on weekdays. However, four lanes of traffic would be required to be maintained at Saratoga-Sunnyvale Road during commute hours (7:00 a.m. to 9:00 a.m.). Therefore construction at the Saratoga-Sunnyvale Road culvert would be limited during those hours. This exception could require some nighttime work at the Saratoga-Sunnyvale Road culvert. Another exception to the normal schedule would be replacement of the culvert at UPRR crossing. The UPRR work would require one 4-day weekend period (from Saturday to Tuesday) where 24-hour construction work is proposed. The SCVWD has coordinated with the UPRR to arrange a 4-day construction window for all work necessary to replace the existing tracks with new tracks on a new bridge. Night work as well as Sunday work elements would require a variance from the Community Development Department.

With respect to the City municipal code restrictions on construction equipment noise of 83 dBA at 25 feet, this standard would likely be exceeded by many common heavy-duty construction equipment. As presented in Table 3, the project proposes to use many types of heavy-duty construction equipment including backhoes, trucks, pumps, directional boring machine, and generators in its construction activities. **Table 7** presents a list of the equipment proposed to be used and their associated noise levels. Noise from many of these typical construction equipment types exceeds 83 dBA at a distance of 25 feet. However, the nearest sensitive receptor to the proposed work areas are located 200 feet away or farther and would not be exposed to these noise levels estimated at 25 feet (refer to the response to question (d) for impacts on sensitive receptors). The implementation of Mitigation Measure NO-3 would reduce any impact to the less-than-significant level.

Table 7 Typical Construction Equipment Noise Levels

Construction Equipment	Average Noise Level (dBA, Leq[a] at 25 feet)[b]	Average Noise Level (dBA, Leq at 50 feet)
Backhoe	86	80
Loader	91	85
Compactor	88	82
Mobile crane	89	83
Generator	87	81
Excavator	88	82
Concrete Pump	88	82
Concrete mixer	91	85
Jackhammer	94	88
Truck	94	88
Directional Boring Machine[c]	91	85

SOURCE: U.S. Department of Transportation, Federal Transit Authority, *Transit Noise and Vibration Impact Assessment*, May 2006.

[a] Leq refers to equivalent continuous sound level

[b] Noise levels at 25 feet were estimated from DOT data using stationary source noise attenuation factors

[c] Directional boring machine noise is estimated based on data accessed on August 31, 2009 at http://www.freepatentsonline.com/4840234.html.

b) Less than Significant. Vibration-generating activities would occur over 200 feet from the nearest occupied structure, they would not significantly impact local residents or businesses. Pile driving is not a proposed construction method for the project. Other potential vibration-causing construction operations would occur from use of heavy equipment and jackhammers, and directional boring equipment used for relocating the gas main. Generally, the predominant vibration generating activities would be the result of impact activities such as concrete breaking or unloading of materials. While truck travel would occur with the proposed project, the rubber tires and suspension systems of trucks provide vibration isolation and it is unusual for trucks to cause ground-borne noise or vibration problems (U.S. DOT, 2006).

The nearest sensitive receptors would be within 300 feet of the RCB culvert and approximately 200 feet from the bridge replacement. At a distance of 200 feet, vibration generation of these sources would be less than 0.01 inches per second peak particle velocity (PPV) which is substantially less than the criteria published by U.S. DOT of 0.2 inches per second for the protection of fragile buildings (U.S. DOT, 2006). With regard for nuisance impacts of construction vibration, at a distance of 200 feet, vibration generation of these sources would be less than 69 vibration decibels (VdB) which is less than the impact criterion for nuisance from frequent vibration events of 70 VdB. Consequently construction operations would not result in a significant vibration impact.

c) No Impact. There are no permanent stationary sources of noise proposed as part of the project elements.

d) Less than Significant with Mitigation Incorporation. The proposed flood control improvements would occur during daytime hours (7:30 a.m. to 6:00 p.m., as proposed), with the exception of the 4-day period of UPRR construction and some night time work at the Saratoga-Sunnyvale Culvert. A survey of existing daytime noise levels was conducted near residences adjacent to the proposed project area along Calabazas Creek. There are approximately a dozen single family residences adjacent to the west bank of the creek and multi-family housing on Oak Creek Lane adjacent to the detention basin on the east side of the creek. The vast majority of heavy construction equipment activity would occur at the Saratoga-Sunnyvale Road culvert and the proposed bridge replacement at the UPRR. The nearest sensitive receptors are within 300 feet of the RCB culvert and approximately 200 feet from the bridge replacement. Residents at these locations would experience elevated noise levels from construction activity during daytime hours. Daytime noise levels between the creek and the Oak Creek Lane residences were monitored to average 51 dBA, with the predominant noise source being roadway traffic on Prospect Road and Saratoga-Sunnyvale Road.

Table 7 presents the noise generated by typical pieces of construction equipment. The noise values given in this table are relative to a reference distance of 50 feet and would be approximately 12 dBA less at the nearest sensitive receptor. Consequently, noise levels of up to 76 dBA could be expected on occasion during construction. With implementation of Best Management Practice NO-2 and Mitigation Measure NO-3 the construction noise would still be noticeable and potentially annoying to adjacent residents over the 6-month construction period. Therefore, additional mitigation measures are recommended (Mitigation Measures NO-4 and NO-5).

Nighttime work, although only proposed to occur for a few consecutive nights, would have the potential to be disruptive to the nearest neighbors. The four consecutive days of proposed 24-hour construction at the UPRR bridge would consist of rail removal, bridge removal, bridge construction, and rail installation, respectively. Equipment use for these activities would generate noise well in excess of existing ambient nighttime noise levels. Consequently additional mitigation is required (Mitigation Measure NO-6).

e) No Impact. There are no public airports within a two mile radius of the proposed project site and no noise related impacts relative to airports would result from the proposed project.

f) No Impact. There are no private airstrips within a two mile radius of the proposed project site and no noise related impacts relative to airports would result from the proposed project.

Best Management Practices

BMP NO-2: Residential Noise Management

(See Appendix A for details)

Mitigation Measures

MM NO-3: To reduce equipment noise impacts, contractors may use a combination of shielding with plywood barriers or noise control blankets or reduced operational loads, as necessary, to operate construction equipment within the limitations established by the City Municipal Code.

MM NO-4: To reduce daytime noise impacts due to construction, the SCVWD will require construction contractors to implement the following measures:

- Equipment and trucks used for project construction will use the best available noise control techniques (e.g., improved mufflers, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible).
- Impact tools (e.g., jack hammers, pavement breakers, and caisson drills) used for project construction will be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust will be used; this muffler can lower noise levels from the exhaust. External jackets on the tools themselves will be used where feasible. Quieter procedures, such as use of drills rather than impact tools, will be used whenever feasible.
- Stationary noise sources will be located as far from adjacent receptors as possible.

MM NO-5: Adjacent residents will be notified about the estimated duration and hours of any construction activity proposed during nighttime hours (6:00 p.m. to 7:30 a.m.) at least 30 days in advance. Residents of properties located adjacent to nighttime construction activities will be offered a hotel room during the 4-day construction period at UPRR.

MM NO-6: Construction material and equipment deliveries will be limited to day time hours to reduce potential noise impacts at night.

Population and Housing

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

Discussion

a) No impact. The proposed project includes short-term construction work within and adjacent to Calabazas Creek. An average of 10 to 20 workers would be required at each site during construction activities. The project would not require workers to be relocated to the community. The project would not result in direct or indirect population growth in the area.

b) and c) No impact. The proposed project would occur within and adjacent to Calabazas Creek. The project would not displace any housing units or people. The project would have no impact on population and housing.

Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?				✓
b) Police protection?				✓
c) Schools?				✓
d) Parks?				✓
e) Other public facilities?				✓

Discussion

a) – e) No impact. The project would not result in adverse impacts associated with public services. The project would have no impact on fire and police protection in the community. The proposed project would not result in a need for additional schools, parks, or other public facilities.

Recreation

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

Discussion

a) No Impact. Increases in demand for recreational facilities are typically associated with substantial increases in population. As further described in the *Population and Housing* section, the proposed project would require an average of 10 to 20 workers for each site during construction. The proposed project would not result in a substantial increased demand for recreational facilities or adversely affect City of Saratoga park/population standards.

b) No Impact. The proposed project does not include any plans for the addition of any recreational facilities nor would it require the construction or expansion of recreational facilities.

Transportation/Traffic

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (for example, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		✓		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?		✓		
e) Result in inadequate emergency access?		✓		
f) Result in inadequate parking capacity?		✓		
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (for example, bus turnouts, bicycle racks?			✓	

Discussion

Regional access to the project area is provided by Interstate 280 (I-280), State Route 85, and U.S. Highway 101 (U.S. 101). Direct access to local roads serving the project area is provided at a freeway interchange on State Route 85 at Saratoga-Sunnyvale Road (known as South De Anza Boulevard north of Prospect Road). U.S. 101 parallels I-280 (about five miles to the north), and motorists using either U.S. 101 or I-280 reach the project area via State Route 85 or Saratoga Avenue.

Local access to the flood protection project is provided by Saratoga-Sunnyvale Road – South De Anza Boulevard, a major arterial - a four-lane divided north-south road with bike lanes, no on-street parking, and traffic signal control at major intersections. The average daily traffic volume in the project area is about 22,700 vehicles (City of Saratoga, 2008b). The staging area along the UPRR right-of-way would be accessed via Saratoga-Sunnyvale Road via UPRR.

Public Transit, Pedestrian, and Bicycle Facilities

The Santa Clara Valley Transportation Authority (SCVTA) operates bus and light rail transit service in the county. SCVTA Bus Route 53 runs hourly (roughly 6:00 a.m. to 7:00 p.m.) between the Sunnyvale Transit Center and West Valley College, and in both directions on Saratoga-Sunnyvale Road through the project area (SCVTA, 2008).

Pedestrian facilities are comprised of sidewalks, pedestrian paths, crosswalks, pedestrian signals and other pedestrian amenities. Sidewalks are provided on Saratoga-Sunnyvale Road and Prospect Road. Crosswalks are provided at signalized intersections in the project area (e.g., Saratoga-Sunnyvale Road / Prospect Road). There are bike lanes on Saratoga-Sunnyvale Road and Prospect Road in the project area.

a) Less Than Significant With Mitigation Incorporation. Construction activity associated with the flood protection improvements would generate short-term increases in vehicle trips by construction workers and by trucks transporting material to and from the sites on area roadways. Project-related hauling and deliveries would be dispersed throughout the day (generally from 7:30 a.m. to 6:00 p.m. on weekdays), thus lessening the effect on peak-hour traffic. Construction-related truck traffic from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. would coincide with peak-period traffic volumes on area roadways and therefore have the greatest potential to impede traffic flow. However, implementation of Mitigation Measure TR-2 would require development of a traffic control plan and would restrict lane closures at Saratoga-Sunnyvale Road during commute hours.

Work on the flood protection project would be done during the dry season, April 15th to October 15th (three months for UPRR bridge replacement, and three to four months for other flood protection improvements, with some overlap when work would occur at the same time). Construction crews for these improvements would require up to 20 workers (i.e., a total of up to 40 workers during the six-month timeframe), and construction worker trips are not anticipated to exceed 100 vehicle trips per day (up to 80 commute trips and 20 midday trips).[5] Disposal of material excavated from the detention basin and at the Saratoga-Sunnyvale Road culvert would require a total of about 300 truck loads (i.e., 600 one-way trips). For construction activities at the UPRR bridge, approximately 50 truck loads (i.e., 100 one-way trips) would be needed to haul away construction debris; and trucks also would be required to bring the pre-cast RCB to the site. Over the course of the six-month concurrent construction period, the level of activity that generates truck trips would vary, but for purposes of this analysis, it is assumed there would be as many as ten one-way truck trips (i.e., five truck loads) per day and as many as two truck trips per hour over the ten-plus-hour work day. Trucks would use an approved haul route (i.e., use of Saratoga-Sunnyvale Road and Interstate 280). To limit noise disruption during evening hours, truck deliveries would be limited to daytime hours with implementation of Mitigation Measure NO-6.

The project-generated traffic would be temporary and therefore would not result in any long-term degradation in traffic operating conditions (i.e., permanent increases in congestion) on any project area roadways. The short-term impact of the project would be less than significant because the estimated number of daily truck trips (spread over the course of the ten-plus-hour work day) would be minimal (particularly as a percent increase above the current daily traffic volumes on the key access roads), and the commute trips by construction workers would primarily occur outside of the peak traffic hours. The chief offsite impacts from the movement of construction trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of trucks compared to passenger vehicles. In addition, drivers could experience delays if they were traveling behind a construction truck.

---

[5] As used herein, the term “vehicle trip” is defined as a one-way vehicle movement with its origin or destination at the work site. That is, the number of worker commute vehicle trips is twice the number of workers because each worker arrives at the work site in the morning and departs from the work site in the evening; it is assumed that some workers also would make miscellaneous midday trips. The number of truck trips is twice the number of truck loads because each truck has to enter and leave the work site.

In addition to project-generated increases in traffic volumes on area roadways, the project would require open trenching across Saratoga-Sunnyvale Road to replace a section of existing culvert with a larger-capacity culvert. The SCVWD and its contractors will work with the City of Saratoga (through the City's encroachment permit process) to develop the best means to maintain traffic flow through the construction zone. Once installation of the new culvert is complete, trenches would be backfilled, and pre-construction road surface conditions would be restored. Other elements of the flood protection project would be constructed outside roadway rights-of-way, and the number of traffic lanes on area roads would be unaffected by the project. Implementation of the SCVWD Traffic Best Management Practice TR-1 and Mitigation Measure TR-2 (traffic control and safety plan) would reduce the impact to less than significant.

b) No impact. Santa Clara County and the city of Saratoga have levels of service (LOS) standards for traffic conditions for roads and intersections within their jurisdiction. However, those LOS standards are intended to regulate long-term traffic increases from operation of new development and do not apply to construction projects whose generated traffic volume increases end when construction activities end. Long-term maintenance of Calabazas Creek after completion of the proposed flood protection improvements is anticipated to generate a minimal increase in maintenance worker trips (similar to current maintenance activity). As such, county and city LOS standards are not used to judge potential project impacts presented herein.

c) No impact. Proposed project elements are far removed from, and would not affect air traffic patterns of, the nearest airport (San Jose International Airport). Therefore, the proposed project would not alter air traffic patterns nor result in substantial safety risks associated with airport operations.

d) Less Than Significant With Mitigation Incorporation. The proposed project would not include new design features (e.g., new facilities or obstructions within public roadways) or alterations of existing features (e.g., road realignment). In addition, traffic generated by the proposed project would be compatible with the mix of vehicle types (autos and trucks) currently using project area roads. Heavy equipment operating adjacent to or within a road right-of-way could increase the risk of accidents. Construction-generated trucks on project corridor roadways would interact with other vehicles. Potential conflicts also could occur between construction traffic and bicyclists and pedestrians. Implementation of Mitigation Measure TR-2 (traffic control and safety plan), and the SCVWD's BMP (specifically TR-1: Public Safety Measures, to install fences, barriers, lights, flagging, guards, and signs, as determined appropriate, to give adequate warning to the public of the construction and of any dangerous condition to be encountered as a result thereof) would reduce the potential impact to a less-than-significant level.

e) Less Than Significant With Mitigation Incorporation. As described in Item "a", the project would require open trenching across Saratoga-Sunnyvale Road to install a concrete culvert. The SCVWD and its contractors would maintain three travel lanes on Saratoga-Sunnyvale Road as the culvert replacement work progresses across the road; access for emergency vehicles would be maintained at all times during the construction period. Implementation of Mitigation Measure TR-2 (traffic control and safety plan), which would require the contractor(s) to work with the City of Saratoga to develop the best means to maintain traffic flow through the construction zone, would reduce the potential impact to a less-than-significant level.

f) Less Than Significant With Mitigation Incorporation. The proposed project construction would create a limited, temporary parking demand for construction workers and construction vehicles. Assuming each worker would drive alone to the work site, there would be a demand for up to 40 parking spaces during the six months of concurrent work at both project sites. Construction worker and equipment parking would be provided in the proposed work and staging areas. The project would temporarily remove approximately three parking spaces from the shopping center adjacent to the detention basin (see Figure 2). The temporary removal of three parking spaces is not anticipated to adversely affect the area's parking capacity. Implementation of Mitigation Measure TR-3, in conjunction with Mitigation Measure TR-2 (traffic control and safety plan), would reduce the potential impact to a less-than-significant level.

g) Less Than Significant. The proposed project would not prevent use of any roads on which public transit routes operate, and neither would it generate increased traffic volumes on roads used for public transit routes at a level that would result in lengthy delays for transit riders. However, during installation of the new culvert beneath Saratoga-Sunnyvale Road, the SCVTA Route 53 buses could be slowed during non-commute hours by having to use the single travel lane (in one direction or the other) through the construction zone (as described in Item "a", above). In addition, as described in Item "a", above, the bicycle lanes on Saratoga-Sunnyvale Road would be temporarily displaced in order to maintain travel lanes for motor vehicles (autos and buses) while the replacement culvert is installed. Incorporation of Mitigation Measure TR-4 would reduce the impact to bicycles to a less-than-significant level.

The proposed project would not include changes in policies, plans, or programs that support alternative transportation. Therefore, the short-term nature of the proposed project's effect on alternative transportation services would be considered a less-than-significant impact.

Best Management Practices

BMP TR-1: Public Safety Measures

(See Appendix A for details)

Mitigation Measures

MM TR-2: The SCVWD will develop a traffic control and safety plan for review and approval by the City of Saratoga. The plan will incorporate standard SCVWD BMPs, such as TR-1, into the project work to avoid or minimize traffic impacts. During commute hours (i.e., 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) four lanes of traffic will be maintained in Saratoga-Sunnyvale Road. Three lanes of traffic will be maintained during non-commute hours (i.e., midday between 9:00 a.m. and 4:00 p.m., and night time between 6:00 p.m. and 7:00 a.m.).

MM TR-3: The SCVWD will require construction workers to park in specified locations (within the construction zone).

MM TR-4: The SCVWD will provide signage that alerts bicyclists to walk their bicycles through the construction area. The signage will include the following details:

- Expected dates of bike path disruption.
- Description and map of temporary detour of the bike path.
- Name and phone numbers of persons to contact at the SCVWD and the City of Saratoga.

The City of Saratoga will verify the posting of signage prior to construction.

Utilities and Service Systems

Would the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			✓	

Discussion

a) – e) No impact. The proposed project would provide flood protection to existing communities. The project does not conflict with wastewater treatment requirements or result in population growth. The proposed project does not result in the need for new or expanded water or wastewater facilities. The proposed project would not require new or expanded water supply resources or entitlements.

f) and g) Less than Significant Impact. The proposed project would have minimal solid waste disposal needs. The excavated material for the detention basin and culvert modification would consist of approximately 3,000 cubic yards (CY). The excavation for the UPRR bridge replacement would include up to 500 CY of material. Excavated soil would be tested to determine its suitability for re-use for other projects. The excavated material that is not suitable for re-use will be properly disposed of.

Mandatory Findings of Significance

Does the project:

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)			✓	
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

Discussion

a) Less than Significant with Mitigation Incorporation. Based on research and site investigations, there is evidence that the proposed project could have a potentially significant impact to aesthetics, biological resources, land use, noise, and traffic unless mitigation is incorporated. Incorporation of specific mitigation measures defined in the previous sections and SCVWD BMPs would reduce potential impacts to a less than significant level.

b) Less than Significant. The proposed project would not contribute to a cumulatively considerable impact. Other proposed projects that would occur within the project vicinity include a median improvements project on Prospect Road, improvements at Kevin Moran Park, and the Saratoga Village Streetscape Improvement Project (City of Saratoga, 2009b). The Prospect Road median improvement project is proposed to occur between Saratoga-Sunnyvale Road and Saratoga Road. Although the project was approved in June 2008, the construction schedule has not yet been determined. The Kevin Moran Park improvements project is currently underway and is located within ¾-mile southeast of the project site. This park improvements project is scheduled to be completed by July 2009. The Saratoga Village Streetscape Improvement Project would occur along Saratoga Creek and Saratoga-Sunnyvale Road (approximately 2 miles south of the project). Project design is currently underway and the construction schedule has not yet been determined (City of Saratoga, 2009b). Since the Kevin Moran park improvements project is scheduled to be complete prior to commencement of the proposed project and construction of the other two projects has not been determined, the proposed project would unlikely contribute to a cumulatively considerable impact. In contrast, the project would reduce cumulative impacts due to flooding adjacent to Calabazas Creek. Therefore, the impact would be less than significant.

c) Less than Significant with Mitigation Incorporation. The proposed project would result in temporary adverse effects related to an increase in noise and traffic as a result of construction activities. In the long-term, however, the project would reduce risks due to flooding in residences and businesses adjacent to Calabazas Creek. Incorporation of SCVWD BMPs and mitigation measures discussed above would reduce potential impacts to a less than significant level.

Section 5 Report Preparation

This section lists those individuals who contributed to the preparation of this IS.

Santa Clara Valley Water District

Contributor	Position
Debra Caldon	Environmental Planning Unit Manager
Jason Christie	Engineering Unit Manager
Saeid Hosseini	Senior Project Manager
Navroop Jassal	Biologist II
Kurt Lueneburger	Environmental Planner II
Karl Neuman	Associate Civil Engineer II
Kristen O'Kane	Environmental Planner II
Linda Spahr	Biologist III
Bill Springer	Senior Engineer
Sue Tippets	Engineering Unit Manager
Leroy (Roy) Weese	Associate Civil Engineer
Steven Wu	Associate Civil Engineer

Environmental Science Associates

Contributor	Position
Lisa Bautista	Word Processor
Allison Chan	Project Associate
Annika Fain	Deputy Project Manager / Hydrologist
Dana Ostfeld	Biologist
Martha Lowe	Senior Biologist
Justin Gragg	Senior Hydrologist
Jack Hutchison	Traffic Engineer
Mike Podlech	Fisheries Biologist
Darcey Rosenblatt	Project Manager
Chris Sanchez	Air and Noise Analyst
Eric Schniewind	Geologist and Hazardous Materials Analyst

Environmental Vision

Contributor	Position
Marsha Gale	Aesthetics Analyst
Chuck Cornwall	Aesthetics Analyst

William Self Associates

Contributor	Position
James Allan	Cultural Resources Analyst
Eric Strother	Cultural Resources Analyst
Paul Farnsworth	Cultural Resources Analyst

Yuki Kawaguchi

Contributor	Position
Ron Teitel	Graphic Artist

Agencies or Persons Contacted

The following agencies or persons were contacted during the preparation of this document.

Contact	Affiliation
Tami Schane	Department of Fish and Game
Margarete Beth	Regional Water Quality Control Board
Kate Bear	City of Saratoga

Section 6 References

Bay Area Air Quality Management District (BAAQMD), *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plan*, December 1999.

BAAQMD, *Bay Area 2005 Ozone Strategy*, January 4, 2006.

BAAQMD, Annual Bay Area Air Quality Summaries, accessed online (http://www.baaqmd.gov/pio/aq_summaries/index.htm) May 9, 2008.

Biedenharn, D.S., R.R. Copeland, C.R. Thorne, P.J. Soar, R.D. Hey, and C.C. Watson, *Effective Discharge Calculation: A Practical Guide*. U.S. Army Corps of Engineers, Engineer Research and Development Center, Coastal and Hydraulics Laboratory, TR-00-15. August 2000.

California Air Pollution Control Officers Association (CAPCOA), *CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008.

California Department of Conservation (CDC), California Agricultural Land Evaluation and Site Assessment Model, available online at http://www.consrv.ca.gov/DLRP/LESA/lesamodl.pdf, accessed on December 18, 2008, 1997.

California Department of Conservation (CDC), Division of Land Resource Protection, Important Farmland in California, ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/fmmp2004_36_40.pdf, 2004.

California Department of Conservation (CDC), Seismic Hazard Zones Map, Cupertino Quadrangle, http://gmw.consrv.ca.gov/shmp/MapProcessor.asp?Action=SHMP&Location=All&Version=7&Browser=IE&Platform=Win, accessed December 1, 2008.

California Department of Fish and Game (CDFG), California Natural Diversity Data Base (CNDDB). Data request for the Cupertino and San Jose West 7.5 minute topographic quadrangles, Commercial version 3.1.0, May 2, 2009, data expires on November 2, 2009.

California Department of Toxic Substances Control (DTSC), *Envirostor Database,* http://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&city=Saratoga&zip=&county=&federal_superfund=True&state_response=True&voluntary_cleanup=True&school_cleanup=True&permitted=True&corrective_action=True&display_results=Report&pub=True, accessed May 8, 2008.

California Department of Transportation (Caltrans), California Scenic Highway Map, http://www.dot.ca.gov/hq/LandArch/scenic_highways/, accessed on December 1, 2008.

California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants, Cupertino and San Jose West, USGS 7.5 minute Quadrangle. Version 7-09b, www.cal.net/~levinel/cgi-bin/cnps/sensinv.cgi, dated April 10, 2009.

City of Saratoga, *City of Saratoga* Noise Element, http://www.saratoga.ca.us/pdf/NoiseElement%201988.pdf, August 17, 1988.

City of Saratoga, *Saratoga City Code Chapter 7, Article 7-30 Noise Control*, 1991a.

City of Saratoga, *Parks and Trails Master Plan*, dated November 5, 1991, available online at http://www.saratoga.ca.us/boards-commissions/park/index.html, accessed on May 28, 2009, 1991b.

City of Saratoga, *City of Saratoga Land Use Element*, http://www.saratoga.ca.us/pdf/LUE053007b.pdf, June 6, 2007.

City of Saratoga, *Prospect Road Median Improvements Master Plan Report*, http://www.saratoga.ca.us/current%20projects/prospectroad.html, accessed on May 28, 2009, approved on June 4, 2008a.

City of Saratoga, Public Works Department, 2006 traffic volume data on Saratoga-Sunnyvale Road north of Cox Avenue, transmitted to ESA via email communication, May 7, 2008b.

City of Saratoga, Very High Fire Hazard Severity Zones Map, http://www.saratoga.ca.us/pdf/Fire%20Hazard%20Map%202009.pdf, accessed on May 28, 2009a.

City of Saratoga, 2009b, Current Projects List, http://www.saratoga.ca.us/current%20projects/current%20projects.html, accessed on May 28, 2009b.

ESA, *Calabazas Creek Project – California Red-Legged Frog Protocol-Level Habitat Assessment*, 2007.

ESA, Calabazas Creek Project (Miller Avenue to Comer Drive), *Opportunities and Constraints Analysis*, prepared for SCVWD, January 2008.

ESA, Calabazas Creek Project Draft Arborist Report, June 2009.

Federal Emergency Management Agency (FEMA), FIRM (Flood Insurance Rate Map), Santa Clara County, City of Saratoga, Number 060351, Panel 0216, revised preliminary, www.map9-m.com/projects/santaclara/, November 2007.

Knighton, D., *Fluvial Forms and Processes A New Perspective*, Oxford University Press Inc., New York, 383 p., 1998.

Leopold, L.B., *A View of the River*, Harvard University Press, Cambridge, Massachusetts, 287 p., 1994.

Santa Clara Valley Transportation Authority (SCVTA), Routes and Schedules, accessed at the vta.org website, as of April 7, 2008.

Santa Clara Valley Water District (SCVWD), *Stream Maintenance Program EIR*, http://www.scvwd.dst.ca.us/Water/Technical_Information/Technical_Reports/_Reports/_SMP/deirtoc.shtm, site accessed December 2, 2008, 2001.

Santa Clara Valley Water District (SCVWD*), Reconstruction of Bollinger Road Bridge Over Calabazas Creek. Initial Study and Mitigated Negative Declaration*, 2003.

Santa Clara Valley Water District (SCVWD), Technical Memorandum from Ryan Heacock through Debra Caldon, to Saeid Hosseini, regarding biological survey of Calabazas Creek from Miller Avenue to Wardell Road, March 20, 2005.

Santa Clara Valley Water District (SCVWD), Rare plant survey of Calabazas Creek, Miller to Wardell; rare plant survey of Regnart and Rodeo Creeks within project footprint, 2006a.

Santa Clara Valley Water District (SCVWD), *Calabazas Creek, Miller Avenue to Wardell Road – Problem Definition/Refined Objectives Report*, Project No. 26104001, November 2006b.

Santa Clara Valley Water District (SCVWD), *HEC-6T Sediment Transport Study*, Calabazas Creek, Miller Avenue to Padero Avenue, Project No. 26104001, 68 p., July 2006c.

Santa Clara Valley Water District (SCVWD), September 1, 2007 News Release, *Silicon Valley Water Supply Hit by Latest Court Ruling*, available online at http://www.valleywater.org/News_and_Events/News_releases/2007_news_releases/September_1,_2007.shtm, accessed on July 1, 2009.

Santa Clara Valley Water District (SCVWD), Governance Policies of the Board-III Ends Policies, http://www.valleywater.org/About_Us/Board_of_directors/Board_Policies/Governance%20Policies/4%20Ends.pdf, adopted on January 18, 2005, latest revision on May 20, 2008a.

Santa Clara Valley Water District (SCVWD), *Best Management Practices Handbook*. Document Number W751M01, May 2008b.

Stinson, M.C., Manson, M.W., and Plappert, J.J., *Mineral Land Classification: Aggregate Materials in the San Francisco – Monterey Bay Area*, Special Report 146, California Division of Mines and Geology, 1983.

State Water Resources Control Board (SWRCB), *Geotracker Database,* http://www.geotracker.swrcb.ca.gov/map/, accessed December 2, 2008.

U.S. Department of Transportation (U.S. DOT), Federal Transit Administration, *Transit Noise and Vibration Assessment*, May 2006.

U.S. Fish and Wildlife Service (USFWS), Sacramento Endangered Species Office, Quick Endangered Species List, Cupertino and San Jose west quadrangles, www.fws.gov/sacramento/es/spp_lists/QuickList, accessed May 2009.

William Self Associates, Inc. (WSA), Department of Parks and Recreation Primary Record Search (DPR 523) for UPRR bridge, December 22, 2008.

APPENDIX A

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

CALABAZAS CREEK FLOOD PROTECTION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
AESTHETICS					
Night-time Lighting	MM AE-1	To the extent possible, the construction contractor will ensure that lighting used during nighttime construction is directed downward and oriented such that no light source is directly visible from neighboring residential areas.	During construction	Construction contractor(s)	SCVWD
AIR QUALITY					
Dust Control Measures	BMP AQ-1	Implement Bay Area Air Quality Management District (BAAQMD) Basic Control Measures for construction emissions of PM_{10} at all construction sites. Current measures stipulated by the BAAQMD CEQA Guidelines include the following (BAAQMD 1999): 1. Active areas will be watered at least twice per day unless soils are already sufficiently moist to avoid dust. The amount of water must be controlled so that runoff from the site does not occur, yet dust control is achieved. 2. Trucks hauling soil, sand, and other loose materials will be covered or will maintain at least two feet of freeboard. 3. Unpaved access roads, parking areas and staging areas at construction sites will be paved, watered three times daily, or non-toxic soil stabilizers will be applied to control dust generation. 4. Paved site access roads, parking areas, and staging areas will be swept daily (with vacuum-powered street sweepers). 5. Paved public streets will be swept (with vacuum-powered street sweepers) if visible soil material is carried onto adjacent paved surfaces.	Throughout all construction phases	Construction contractor(s)	SCVWD
Avoid Stockpiling Potentially Odorous Materials	BMP AQ-4	Some sites will have materials that are rich in organic matter decaying in an anaerobic condition, which generates assorted malodorous gases, such as reduced sulfur compounds. These materials will be handled in a manner that avoids impacting sensitive receptors.	Throughout construction phase	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		1. Avoid stockpiling potentially odorous materials within 1,000 feet of residential areas or other odor sensitive land uses. 2. Where appropriate, odorous stockpiles will be disposed of at an appropriate landfill.			
BIOLOGICAL RESOURCES					
Migratory Bird Surveys	BMP BI-8	Migratory bird surveys will be performed prior to any project-related activity that could pose the potential to affect migratory birds. Inactive bird nests may be removed, with the exception of raptor nests. No birds, nests with eggs, or nests with hatchlings will be disturbed.	Prior to and throughout construction	Construction contractor(s)	SCVWD
Migratory Bird Nesting Prevention – Vegetation Clearing	BMP BI-9	Vegetation can be cleared and maintained to prevent migratory bird nesting. All necessary vegetation clearing will be performed prior to the nesting season, if at all possible. No vegetation will be trimmed back unnecessarily, including trees and/or shrubs growing near the right of way, which overhang onto the work site.	Prior to construction	Construction contractor(s)	SCVWD
Migratory Bird Nesting Exclusion Devices	BMP BI-10	Nesting exclusion devices may be installed to prevent potential establishment or occurrence of nests in areas where construction activities would occur. All nesting exclusion devices will be maintained throughout the nesting season, or until completion of work in an area makes the devices unnecessary. All exclusion devices will be removed and disposed of when work in the area is complete.	Prior to and throughout construction phase (as necessary)	Construction contractor(s)	SCVWD
Avoidance of impacts to nesting birds	MM BI-11	The following measures will reduce impacts to native nesting birds to a less than significant level: (1) In the event that an active nest of a protected bird species is discovered in the construction area, or in adjacent areas considered to have the potential to be disturbed by construction, a protective buffer zone will be established around the nest as follows:	Prior to and during construction	Construction contractor(s)	SCVWD

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		~~• A 20-foot radius buffer zone will be established around the nest of any non-raptor ground-nesting bird.~~ • A 50-foot radius buffer zone will be established around any non-raptor nests ~~in shrubs, trees, on structures, or on equipment.~~ • A 250-foot radius buffer zone will be established for hawks, owls, herons, and egrets. These buffer zones may be adjusted in consultation with applicable resource agencies, depending on the type of project activity, the species of bird nesting, whether the nest would have a direct line of sight to construction activities, local topography and vegetation, and the existing noise and human disturbance levels. No construction activity of any kind will be permitted in the buffer zone until a biologist determines that the young have fledged or otherwise abandoned the nest.			
Avoidance of impacts to roosting bats	MM BI-12	The following measures will reduce impacts to bat roosts to a less than significant level: (1) Prior to the start of proposed project ground clearance and construction activities, a qualified bat biologist will conduct surveys of potential roosting habitat, such as large trees and culverts, within the work footprint. Surveys will take place no more than 14 days prior to the onset of site preparation and construction activities with the potential to disturb bats or their habitat. (2) If active maternity roosts are found they will be avoided, and a no-disturbance buffer acceptable in size to CDFG will be established around the maternity roost. (3) If special-status bats are found in the work footprint and avoidance is not possible, a qualified wildlife biologist will consult with CDFG to identify appropriate protection measures.	Prior to and during construction	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		(4) If a non-breeding, non-special-status day roost is found in a culvert or in trees scheduled to be removed, the individuals will be safely evicted by a qualified bat biologist (a biologist holding a Memorandum of Understanding with CDFG, allowing the biologist to handle and collect bats), using methods appropriate for the roost type and bat species present. Exclusion methods may include installing exclusion devices (using materials such as plastic bird netting [1.25x1.25 cm], polyvinyl chloride (PVC) pipes, or even socks with the toe cut out, that allows bat egress but not ingress), or creating holes in the roost to alter the airflow and temperature so that it is no longer suitable for the bats.			
Avoidance of Impacts to Wetland Vegetation	MM BI-13	The following measure will reduce impacts to wetlands. (1) Impacts to wetlands will be avoided by establishing an exclusion zone with protective fencing around the outer edge of the wetlands. Exclusion fencing will be brightly colored, and erected under the supervision of a qualified biologist prior to the start of construction activities and maintained throughout the construction period. No construction activity, equipment, or materials will be permitted within this exclusion zone.	Prior to, during, and after construction	Construction contractor(s)	District
Avoidance of Impacts to Riparian Habitat and Protected Trees	MM BI-14	The following measures will reduce impacts to riparian habitat and protected trees: (1) For those trees that can be avoided by project activities, a Tree Protection Zone (TPZ) will be established around the tree(s). The TPZ will be defined according to the International Society of Arboriculture recommendations or, if greater, as the radius of the crown of the tree plus 5 feet. The TPZ will be marked with brightly colored exclusion fencing, and this fencing will remain in place for the duration of project activities. Construction personnel will be prohibited from entering the TPZ for the duration of project	After construction	Construction contractor(s)	SCVWD

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		construction. Construction activities, vehicle operation, material and equipment storage, and other surface-disturbing activities will be prohibited within the TPZ. (2) For those trees that cannot be avoided by project activities, a certified arborist will monitor construction in the TPZ. Tasks of the arborist will include, but not be limited to: pruning trees in accordance with the pruning guidelines of the International Society of Arboriculture prior to construction to improve tree structure and allow access without damage to branches; supervise excavation to limit damage to tree roots; and cutting tree roots as necessary to avoid impacts to standing trees. (3) The SCVWD will obtain a City of Saratoga tree removal permit for trees designated as “protected trees,” that are removed for the project. These removed trees will be replaced with native species. Native “protected trees” will be replaced at a 3:1 ratio, and non-native “protected trees” will be replaced at a 2:1 ratio, unless otherwise specified in the City of Saratoga tree permits. (4) ~~The SCVWD will replace protected habitat and trees that are removed as a result of project activities according to the terms of applicable local, state, and federal permits.~~ The SCVWD will revegetate areas where project activities result in a loss of ground cover, as soon as feasible. Revegetation will include a palette of species native to the area. The SCVWD will develop and implement a mitigation and monitoring plan (MMP) to ensure that the disturbed areas are returned to an equivalent or improved level of predisturbance habitat quality. The MMP will be developed in the context of the federal and state permitting processes under the Clean Water Act and California Fish and Game Code, and will include success criteria, monitoring, and reporting requirements as specified by the permitting agencies.			

CALABAZAS CREEK FLOOD PROTECTION PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
CULTURAL RESOURCES					
Archaeological Finds	BMP CU-2	Work in areas where archaeological artifacts are found will be restricted or stopped until proper protocols are met. Work at the location of the find will halt immediately within 30 feet of the find. A Consulting Archaeologist will visit the discovery site as soon as practicable for identification and evaluation pursuant to Section 21083.2 of the Public Resources Code and Section 15126.4 of the California Code of Regulations. If the archaeologist determines that the artifact is not significant, construction may resume. If the archaeologist determines that the artifact is significant, the archaeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archaeologist will develop within 48 hours an Action Plan which will include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines.	Throughout construction phase	Construction contractor(s)	SCVWD
Burial Finds	BMP CU-3	Work in areas where any burial site is found will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be immediately notified. No further excavation or disturbance within 30 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.	Throughout construction phase	Construction contractor(s)	SCVWD
HAZARDS AND HAZARDOUS MATERIALS					
Vehicle and Equipment Cleaning	BMP HM-9	Vehicles will be washed only at the approved area in the corporation yard. No washing of vehicles will occur at job sites.	Throughout construction phase	Construction contractor(s)	SCVWD
Vehicle and Equipment Fueling	BMP HM-10	No fueling will be done in a waterway or immediate flood plain, unless equipment stationed in these locations is not readily relocated (i.e., pumps, generators).	Throughout construction phase	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		1. For stationary equipment that must be fueled on-site, containment will be provided in such a manner that any accidental spill of fuel will not be able to enter the water or contaminate sediments that may come in contact with water. 2. Any equipment that is readily moved out of the waterway will not be fueled in the waterway or immediate flood plain. 3. All fueling done at the job site will provide containment to the degree that any spill will be unable to enter any waterway or damage riparian vegetation.			
Vehicle and Equipment Maintenance	BMP HM-11	No equipment servicing will be done in a stream channel or immediate flood plain, unless equipment stationed in these locations cannot be readily relocated (i.e., pumps, generators). 1. Any equipment that can be readily moved out of the channel will not be serviced in the channel or immediate flood plain. 2. All servicing of equipment done at the job site will provide containment to the degree that any spill will be unable to enter any channel or damage stream vegetation. 3. If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location will be done in a channel or flood plain. 4. If emergency repairs are required, containment will be provided equivalent to that done for fueling or servicing.	Throughout construction phase	Construction contractor(s)	SCVWD
Hazardous Materials Management	BMP HM-12	Measures will be implemented to ensure that hazardous materials are properly handled and the quality of water resources is protected by all reasonable means. 1. Prior to entering the work site, all field personnel will know how to respond when toxic materials are discovered. 2. The discharge of any hazardous or non-hazardous waste as defined in Division 2, Subdivision 1, Chapter 2 of the	Prior to and throughout construction phase	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		California Code of Regulations will be conducted in accordance with applicable State and federal regulations. In the event of any hazardous material emergencies or spills, personnel will call the Chemical Emergencies/Spills Hotline at 1-800-510-5151.			
Spill Prevention	BMP HM-13	Prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water. 1. Field personnel will be appropriately trained in spill prevention, hazardous material control, and clean-up of accidental spills. 2. No fueling, repair, cleaning, maintenance, or vehicle washing will be performed in a creek channel or in areas at the top of a channel bank that may flow into a creek channel.	Prior to and throughout construction phase	Construction contractor(s)	SCVWD
Spill Kit Location	BMP HM-14	Spill prevention kits appropriate to the hazard will always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). 1. Prior to entering the work site, all field personnel will know the location of spill kits on crew trucks and at other locations within SCVWD facilities. 2. All field personnel will be advised of these locations and trained in their appropriate use.	Prior to and throughout construction phase	Construction contractor(s)	SCVWD
HYDROLOGY AND WATER QUALITY					
Conduct Work from Top of Bank	BMP WQ-1	For minor work activities that will occur in the channel, work will be conducted from the top of the bank if access is available and there are flows in the channel.	Throughout construction phase	Construction contractor(s)	SCVWD
Use of Wheel and Appropriately-Tired Vehicles in Stream Bottoms	BMP WQ-2	Field personnel will use the appropriate equipment for the job that minimizes disturbance to the stream bottom. Appropriately-tired vehicles, either tracked or wheeled, will be used depending on the situation. Tracked vehicles (bulldozers, loaders) may cause scarification. Wheeled vehicles may cause compaction. Heavy equipment will not operate in the live stream.	Throughout construction phase	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
Handle Sediments so as to Minimize Water Quality Impacts	BMP WQ-4	Sediments will be stored and transported in a manner that minimizes water quality impacts. 1. Wet sediments may be stockpiled outside of a live stream or may be stockpiled within a dewatered stream so water can drain or evaporate before removal. 2. This measure applies to saturated, not damp, sediments and depends upon the availability of a stockpile site. 3. For those stockpiles located outside the channel, water draining from them will not be allowed to flow back into the creek or into local storm drains that enter the creek, unless water quality protection measures recommended by the RWQCB are implemented. 4. Trucks may be lined with an impervious material (e.g. plastic), or the tail gate blocked with dry dirt or hay bales, for example, or trucks may drain excess water by slightly tilting their loads and allowing the water to drain out. 5. Water will not drain directly into channels (outside of the work area) or onto public streets without providing water quality control measures. 6. Streets will be cleared of mud and/or dirt by street sweeping (with a vacuum-powered street sweeper), as necessary, and not by hosing down the street.	Throughout construction phase	Construction contractor(s)	SCVWD
Soil Stockpiles	BMP WQ-5	If soil is to be stockpiled, no run-off will be allowed to flow to a creek.	Throughout construction phase	Construction contractor(s)	SCVWD
Stabilized Construction Entrance	BMP WQ-6	Measures will be implemented to minimize soil from being tracked onto streets near work sites: 1. Methods used to prevent mud from being tracked out of work sites onto roadways include installing a layer of geotextile mat, followed by a 4-inch thick layer of 1 to 3-inch diameter gravel on unsurfaced access roads. 2. Access will be provided as close to the work area as possible, using existing ramps where available and	Throughout construction phase	Construction contractor(s)	SCVWD

Environmental Issue	**Measure Element #**	**Mitigation Measure**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Responsibility for Oversight**
		planning work site access so as to minimize disturbance to the water body bed and banks, and the surrounding land uses.			
Diversion/Bypass Water at Non-tidal Sites	BMP WQ-12	When work in a flowing stream is unavoidable, the entire streamflow will be diverted around the work area by a barrier. Construction of the barrier will normally begin in the upstream area and continue in a downstream direction, and the flow will be diverted only when construction of the diversion is completed. The water diversion plan will allow stream flows to gravity flow around or through the work site using temporary culverts or stream flow is pumped around the work site using pumps and screened intake hoses. Coffer dam construction will be adequate to prevent seepage into or from the work area. Coffer dams will be constructed of river run gravel with a fines content that is less than 15%. Fines are defined as material that is able to pass through a #20 sieve. Coffer dams may also be constructed of sheet piles, inflatable dams, or sand bags. Coffer dams will be installed both upstream and downstream not more than 100 feet from the extent of the work areas. In-channel berms that only deflect water to one side of the channel during sediment removal may be constructed of channel material. The enclosure and the supportive material will be removed when the work is completed and the removal will normally proceed from downstream in an upstream direction. Normal flows will be restored to the affected stream immediately upon completion of work at that location: 1. All water will be discharged in a non-erosive manner (e.g., gravel or vegetated bars, on hay bales, on plastic, on concrete, or in storm drains when equipped with filtering devices, etc.). 2. Sumps or basins may also be used to collect water, where appropriate (e.g., in channels with low flows). 3. Where feasible and appropriate, diversion structures will be installed on concrete sections of the channels or	Throughout construction phase	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		constructed of materials specified above. Earth fill will not be used for cofferdams in non-tidal areas. 4. In conjunction with diversion structures, pumps or gravity-fed pipe systems will be used to dewater sites. 5. Depending on the channel configurations, sediment removal may occur where the flows are not bypassed around the work site; as long as during excavation activities, a berm of sediment is left between the work area and stream flows to minimize water quality impacts. 6. Diversions will maintain ambient stream flows below the diversion, and waters discharged below the project site will not be diminished or degraded by the diversion.			
Seeding	BMP WQ-14	For banks that are scraped, an erosion control seed mix will be used. Temporary earthen access roads will be seeded when site and horticultural conditions are suitable.	Throughout construction phase	Construction contractor(s)	SCVWD
Groundwater Management	BMP WQ-15	If high levels of groundwater in a work area are encountered, the water will be pumped out of the work site. If necessary to protect water quality, the water will be directed into specifically constructed infiltration basins, into holding ponds, or onto areas with vegetation to remove sediment prior to the water re-entering a receiving water body. Water pumped into vegetated areas will be pumped in a manner that will not create erosion around vegetation.	Throughout construction phase	Construction contractor(s)	SCVWD
Site Maintenance and Cleanup	BMP WQ-18	The work site, areas adjacent to the work site, and access roads will be maintained in an orderly condition, free and clear from debris and discarded materials. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust into storm drains or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the work site.	Throughout construction phase	Construction contractor(s)	SCVWD
Silt Fence Culvert Entrance	BMP WQ-26	To reduce flow velocity of runoff, allowing sediment to settle out before discharge enters a culvert and its drainage system:	Throughout construction	Construction contractor(s)	SCVWD

Environmental Issue	**Measure Element #**	**Mitigation Measure**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Responsibility for Oversight**
Protection		1. Install silt fence culvert protection in appropriate locations: a. Where sheet and rill erosion will occur. b. Where protection of adjacent property or areas is needed. c. Where the maximum slope length behind the silt fence is 100 feet (30 meters) and the maximum slope gradient is 50% (2:1). d. Where the flow volume does not exceed 1 cfs. e. Where ponded water will not damage adjacent areas or structures, or create a traffic hazard or other nuisance. 2. Select the correct construction materials: a. Select a woven or non-woven filter fabric made of at least 85% by weight, ethylene, propylene, amide, ester, or vinylidene yarn. b. The Equivalent Opening size of the filter fabric (U.S. Standard Sieve) will be 70-100, and the tensile strength will be at least 120 lbs (54 kg) if a wire support fence is used and 200 lbs (90 kg) if a wire support fence is not used. c. Posts should be either 4-inch diameter wood or 1.33 pounds per linear foot steel. Posts should be at least 5 feet long. Steel posts should have projections for fastening wire. d. Wire fence reinforcement will be a minimum of 42 in (1.1 m) tall and a minimum width of 14-gauge. The maximum mesh spacing should be 6 in (15 cm). 3. Construct the silt fence properly: a. The height of the silt fence should be between 16 in (40 cm) and 36 in (90 cm). The most effective height range is 24 to 36 in (60 to 90 cm). Shorter fences may	phase		

CALABAZAS CREEK FLOOD PROTECTION PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		be breached during small discharges and require more maintenance. b. If possible, cut the filter fabric from a continuous roll to avoid the use of joints. If joints are necessary, splice the filter fabric only at a support post. Overlap the fabric pieces a minimum of 6 in (15 cm) and secure both ends to the post. c. If a wire mesh support fence is used, install posts at least 3 feet (1 meter) apart. Install posts closer together if a support fence is not used. Drive posts into the ground to a depth of at least 1 foot (30 cm). d. Excavate a 4-in (10 cm) deep trench that is at least 4 in (10 cm) wide upslope of the silt fence along the line of posts.			
Discharge Surface Protection - Armoring	BMP WQ-27	To protect exposed soil and vegetated surfaces from erosion during discharges by placing protective armor (e.g. plastic sheeting, cloth fabric, gravel bedding) over the erodible surface: 1. Select and install armoring materials properly: a. Choose a material whose strength is proportionate to the velocities and materials in the discharged water (e.g. sediment). b. Clear the area to be protected of rocks and debris which may puncture the armor. c. Anchor the armor using sandbags, gravel, or stakes along the perimeter. d. Anchor the armor so it can withstand movement of the discharge. e. Account for potential changes in the flow direction of the discharge when laying the armor. f. If there is to be a direct stream of high velocity flow, an energy dissipating device may be necessary to prevent failure of the armor.	Throughout construction	Construction contractor(s)	SCVWD

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		2. Inspection and Maintenance: a. During the discharge, monitor the armor for failure (tearing) and erosion at the edges of the armor. b. If erosion does occur, implement sediment/turbidity control measures. c. Remove armor when the discharge is complete. d. Sweep up any sediment deposited in the flow path and dispose of appropriately. e. Complete the Planned Discharge Activities Checklist and submit it to SCVWD staff responsible for Water Utility Discharge Pollution Prevention Plan reporting.			
Water Pollution Control	BMP WQ-40	Oily, greasy, or sediment laden substances or other material that originate from the project operations and may degrade the quality of surface water or adversely affect aquatic life, fish, or wildlife will not be allowed to enter, or be placed where they may later enter, any waterway. The project will not increase the turbidity of any watercourse flowing past the construction site by taking all necessary precautions to limit the increase in turbidity as follows: 1. where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases will not exceed 5 percent; 2. where natural turbidity is greater than 50 NTU, increases will not exceed 10 percent; 3. where the receiving water body is a dry creek bed or storm drain, waters in excess of 50 NTU will not be discharged from the project. Water turbidity changes will be monitored. The discharge water measurements will be made at the point where the discharge water exits the water control system for tidal sites and 100 feet downstream of the discharge point for non-tidal sites. Natural watercourse turbidity measurements will be	Throughout construction	Construction contractor(s)	SCVWD

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
		made in the receiving water 100 feet upstream of the discharge site. Natural watercourse turbidity measurements will be made prior to initiation of project discharges, preferably at least 2 days prior to commencement of operations.			
Stormwater Pollution Prevention	BMP WQ-41	Suitable erosion control, sediment control, source control, treatment control, material management, and non-stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association "Stormwater Best Management Practices Handbook," which is available at www.cabmphandbooks.com.	Throughout construction	Construction contractor(s)	SCVWD
LAND USE AND LAND USE PLANNING					
Landscaping Impacts	MM LU-1	The SCVWD will replant and restore any disturbed landscaped areas within the Saratoga-Sunnyvale Road public street right-of-way once construction is complete.	After construction	Construction contractor(s)	SCVWD
NOISE					
Residential Noise Management	BMP NO-2	The SCVWD will implement practices that minimize disturbances to residential neighborhoods surrounding work sites. 1. In general, work will be conducted during normal working hours. Extending weekday hours and working weekends may be necessary to complete some projects. 2. Internal combustion engines will be equipped with adequate mufflers. 3. Excessive idling of vehicles will be prohibited. 4. All construction equipment will be equipped with manufacture's standard noise control devices. 5. The arrival and departure of trucks hauling material will be limited to the hours of construction. 6. The use of jake brakes is prohibited in residential areas.	Throughout construction	Construction contractor(s)	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
Equipment Noise	MM NO-3	To reduce equipment noise impacts, contractors may use a combination of shielding with plywood barriers or noise control blankets or reduced operational loads, as necessary, to operate construction equipment within the limitations established by the City Municipal Code.	Prior to and throughout construction	Construction contractor(s)	SCVWD
Daytime Noise Impacts	MM NO-4	To reduce daytime noise impacts due to construction, the SCVWD will require construction contractors to implement the following measures: • Equipment and trucks used for project construction will use the best available noise control techniques (e.g., improved mufflers, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible). • Impact tools (e.g., jack hammers, pavement breakers, and caisson drills) used for project construction will be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust will be used; this muffler can lower noise levels from the exhaust. External jackets on the tools themselves will be used where feasible. Quieter procedures, such as use of drills rather than impact tools, will be used whenever feasible. • Stationary noise sources will be located as far from adjacent receptors as possible.	Throughout construction	Construction contractor(s)	SCVWD
Equipment Noise Levels	MM NO-5	Adjacent residents will be notified about the estimated duration and hours of any construction activity proposed during nighttime hours (6:00 p.m. to 7:30 a.m.) at least 30 days in advance. Residents of properties located adjacent to nighttime construction activities will be offered a hotel room during the 4 day construction period at UPRR.	Throughout construction	Construction contractor(s)	SCVWD
Noise Ordinance Variance	MM NO-6	Construction material and equipment deliveries will be limited to day time hours to reduce potential noise impacts at night.	Prior to construction	SCVWD	SCVWD

CALABAZAS CREEK FLOOD PROTECTION PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

Environmental Issue	Measure Element #	Mitigation Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Oversight
TRANSPORTATION TRAFFIC					
Public Safety Measures	BMP TR-1	Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the public agency having jurisdiction, to give adequate warning to the public of the construction and of any dangerous condition to be encountered as a result thereof.	Throughout construction	Construction contractor(s)	SCVWD
Traffic Control and Safety Plan	MM TR-2	The SCVWD will develop a traffic control and safety plan for review and approval by the City of Saratoga. The plan will incorporate standard SCVWD BMPs, such as TR-1, into the project work to avoid or minimize traffic impacts. During commute hours (i.e., 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) four lanes of traffic will be maintained in Saratoga-Sunnyvale Road. Three lanes of traffic will be maintained during non-commute hours (i.e., midday between 9:00 a.m. and 4:00 p.m., and night time between 6:00 p.m. and 7:00 a.m.).	Prior to construction	Construction contractor(s)	SCVWD
Construction Worker Parking	MM TR-3	The SCVWD will require contractor(s) to identify locations for parking by construction workers (within the construction zone.	Prior to and throughout construction	Construction contractor(s)	SCVWD
Construction Signage for Bicyclists and Pedestrians	MM TR-4	The SCVWD will provide signage that alerts bicyclists to walk their bicycles through the construction area. The signage will include the following details: • Expected dates of bike path disruption. • Description and map of temporary detour of the bike path. • Name and phone numbers of persons to contact at the SCVWD and the City of Saratoga. The City of Saratoga will verify the posting of signage prior to construction.	Prior to and throughout construction	SCVWD	SCVWD

APPENDIX B

RESPONSE TO PUBLIC COMMENTS

Response to Public Comments

The draft IS/MND was sent to the State Clearinghouse for official review from September 21, 2009 to October 22, 2009. A letter dated October 27, 2009 was received from the State Clearinghouse stating that the project has complied with the State Clearinghouse review requirements for draft environmental documents under CEQA.

This Appendix presents responses to all of the comments received on the Draft IS/MND during the review period. Each comment letter has been assigned a designation “A” through “D.” Each comment has been assigned a number (i.e., A-1). Responses are provided to each comment. The Santa Clara Valley Water District Board of Directors considers the information contained in the final document, as well as comments and responses on the draft document.

All changes to the draft IS/MND are described in the response and referenced by the page number in which the original text appears in the draft IS/MND.

Comment	**Response**	**Text Change**
A. California Department of Fish and Game		
1. Page 8 – Culvert Modification: The photograph in Figure 3 appears to indicate that the existing width of the arch culvert is 16 feet, but the drawing below the figure indicates there is an existing rectangular culvert which is narrower than 16 feet in width. Please clarify the width of the existing culvert. Also, please clarify the quantity and dimension of rockfill anticipated to be placed between the culvert entrance and 20 feet upstream of the culvert entrance. Is it anticipated that the rockfill at the culvert entrance will be grouted?	The width of the existing culvert transitions from 16 feet wide at the upstream end to 12 feet at the downstream end. Approximately 600 cubic feet (20’x15’x2’) of rockfill would be installed at the culvert entrance. The rockfill protection would not be grouted.	pp. 5 (Table 2), 8, and 12 (Table 3)
2. Page 8 – Utility Lines: The document indicates that among the various utility lines in the area, phone lines and a water line (also called a “jumper line”) will be temporarily suspended over the creek during construction. Please describe how these lines will be suspended over the creek.	The water line will be temporarily suspended by a 6-inch steel suspended bypass (or jumper line). This bypass would span approximately 44 feet and would be supported by two A-frame pipe supports. The pipe supports will be set back approximately two feet away from the edge of the creek embankment and will hold the pipe at least 18 inches above the top-of-bank grade. The supports are necessary to set the pipe above grade and to ensure that it does not contact the embankment edges. For the phone line, a metal beam is typically placed across the opening and the cables would be attached to the beam. Depending on how much space is	p. 8

Comment	Response	Text Change
	needed, the beam may be raised. The actual support would be proposed by the contractor and approved by AT&T prior to construction.	
3. Page 10 – UPRR Bridge: Please describe the quantity of rockfill that is anticipated to be placed along Calabazas Creek upstream and downstream of the bridge embankments.	The dimensions of the rockfill to be installed upstream of the UPRR bridge would be approximately 45 feet long, 25 feet wide, 2 feet deep (2,250 cubic feet; 83 CY). The dimensions of the rockfill to be installed downstream of the UPRR bridge would be approximately 20 feet long, 23 feet wide, and 2 feet deep (920 cubic feet; 34 CY). A total of approximately 3,170 cubic feet (117 CY) of rockfill would be installed around the UPRR bridge.	pp. 5 (Table 2), 10, and 12 (Table 3)
4. Page 10 – Dewatering: The document indicates that dewatering activities may be necessary for construction at the UPRR Bridge. Please describe the timeline and method in which dewatering activities may occur. Is the UPRR Bridge the only location in which dewatering is potentially anticipated?	In the project area, past observations indicate that Calabazas Creek is an intermittent stream that generally ceases to flow during the dry season (April 15 through October 15; see p. 15 of the IS/MND). However, as a precaution, the District has included potential dewatering measures to prevent construction impacts on Calabazas Creek. District Best Management Practice WQ-12 (Diversion/Bypass Water at Non-tidal Sites; see p. A-9) describes the methods in which dewatering activities would occur, if needed. Although it is unlikely that dewatering would be needed while construction occurs in the detention basin or at the culvert modification sites, implementation of BMP WQ-12 would minimize potential impacts related to dewatering.	N/A
5. Page 10 – Staging: The document indicates that a low-lying area will be used as a staging and work area and is said to be shown in Figure 3. Figure 3 is a photograph and drawing of a culvert, and it does not show a low-lying area where staging will occur. Please describe the habitat present in the low-lying area and confirm that staging will not take place within the limits of the creek channel.	The text has been revised to correctly reference Figure 2. Habitat within the low-lying area (identified as the detention basin in Figure 2) is dominated by non-native annual grasses as described on page 31. No staging would occur within the limits of the creek channel.	p. 10
6. Page 13 – Construction Schedule: Table 3 indicates that construction at the detention basin and the UPRR Bridge will occur concurrently. The document describes the construction duration for the detention basin activities and culvert work to take about three to four months, while the UPRR Bridge replacement will take about three months. If the work is being done concurrently, it is unclear why such an early date (April 15) to being construction is planned. In-stream work windows typically occur between June 15 and October 15. Please describe why the District feels it is necessary to begin as	Calabazas Creek is generally dry from April 15 through October 15 within the proposed work area as described on page 15 of the IS/MND. Project activities would occur during this dry period to minimize impacts on federally and state protected jurisdictional waters (see page 32 of the IS/MND). This proposed timeframe would provide the District the flexibility to construct anytime within that time frame as long as Calabazas Creek is dry. Bridge demolition, removal, and replacement activities within the footprint of the UPRR tracks would be completed during the 4-day, 24-hour work period. All other project activities would be completed during the normal 3-month	p. 13

Comment	Response	Text Change
early as April 15 to complete the work by October 15. *The document describes the three month work window anticipated to complete the UPRR Bridge replacement, but also says that all bridge removal and replacement activities must be completed within a four-day weekend to avoid disruption of the train corridor. Please clarify what activities are anticipated to occur over the four-day weekend.*	construction period. These remaining activities include bridge demolition, removal, and replacement activities outside the footprint of the UPRR tracks; and installation of transition wing walls, warped wing walls, and rockfill protection.	
7. Page 35 – Migratory Nesting Birds: The document indicates that Mitigation Measure BI-11 will be implemented to reduce impacts to native nesting birds, including the establishment of a 20-foot radius buffer zone around the nest of any non-raptor ground-nesting bird. Please describe how this buffer distance would adequately protect a bird nesting in the area where there may be operation of large equipment and the movement of materials and vehicles. DFG recommends increasing this buffer distance to a 50-foot radius buffer zone to more effectively avoid disturbance to non-raptor ground-nesting birds.	Based on the comment, the mitigation has been modified to include a 50-foot, instead of a 20-foot radius. Mitigation Measure BI-11 has been modified as follows: ~~• A 20-foot radius buffer zone will be established around the nest of any non-raptor ground-nesting bird.~~ • A 50-foot radius buffer zone will be established around any non-raptor nests ~~in shrubs, trees, on structures, or on equipment~~.	pp. 35 and A-3 (see Appendix A)
8. Page 36 – Bat Roosts; The document indicates that Mitigation Measure BI-12 will be implemented to reduce impacts to bat roosts, including the eviction of non-breeding non-special-status species found in day roosts. Please describe in detail the methods by which individual bats may be evicted from their roost if found to be in the vicinity of project activities.	Based on the comment, Mitigation Measure BI-12 has been modified as follows: (4) If a non-breeding, non-special-status day roost is found in a culvert or in trees scheduled to be removed, the individuals will be safely evicted by a qualified bat biologist (a biologist holding a Memorandum of Understanding with CDFG, allowing the biologist to handle and collect bats), using methods appropriate for the roost type and bat species present. Exclusion methods may include installing exclusion devices (using materials such as plastic bird netting [1.25x1.25 cm], polyvinyl chloride (PVC) pipes, or even socks with the toe cut out, that allows bat egress but not ingress), or creating holes in the roost to alter the airflow and temperature so that it is no longer suitable for the bats.	pp. 36 and A-4 (see Appendix A)

Comment	**Response**	**Text Change**
9. Page 37 – Tree Mitigation: The document indicates that Mitigation Measure BI-14 will be implemented to reduce impacts to riparian habitat, including the replacement of trees that are removed as a result of the project. Please describe how trees are anticipated to be mitigated, in terms of the use of mitigation ratios for number of lost trees according to species, versus replacement of total canopy cover or some other type of measure of riparian habitat that is lost due to the project.	Based on the comment, Mitigation Measure BI-14 has been modified as follows: (3) The SCVWD will obtain a City of Saratoga tree removal permit for trees designated as “protected trees,” that are removed for the project. These removed trees will be replaced with native species. Native “protected trees” will be replaced at a 3:1 ratio, and non-native “protected trees” will be replaced at a 2:1 ratio, unless otherwise specified in the City of Saratoga tree permits. (4) ~~(3) The SCVWD will replace protected habitat and trees that are removed as a result of project activities according to the terms of applicable local, state, and federal permits.~~ The SCVWD will revegetate areas where project activities result in a loss of ground cover, as soon as feasible. Revegetation will include a palette of species native to the area. The SCVWD will develop and implement a mitigation and monitoring plan (MMP) to ensure that the disturbed areas are returned to an equivalent or improved level of predisturbance habitat quality. The MMP will be developed in the context of the federal and state permitting processes under the Clean Water Act and California Fish and Game Code, and will include success criteria, monitoring, and reporting requirements as specified by the permitting agencies.	pp. 32, 37, and A-5 (see Appendix A)
B. Regional Water Quality Control Board – San Francisco		
1. It seems a wetland delineation has not been conducted for the project site. Do you have a sense of how much wetlands exist on-site?	The District completed a preliminary wetland assessment in May 2007. A Corps-verified wetland delineation will be completed for the project as permits are obtained. Mitigation Measure BI-13 and SCVWD BMP WQ-41 have been incorporated to reduce potential impacts to a less-than-significant level.	N/A
2. Regarding the UPRR conducting their own work to replace the UPRR bridge, we may have them apply for their work separately. Have you considered this or any other option for this particular project activity?	The UPRR's work would be limited to removing the tracks and ballast, and replacing the tracks when the proposed project is complete. No natural resource impacts are identified for the track removal and replacement activities. The District will take responsibility for any construction activities and the associated permitting requirements for the remainder of the work (e.g., removal of the bridge, installation of a new bridge, rock protection, etc.).	N/A

Comment	**Response**	**Text Change**
C. Santa Clara Valley Transportation Authority		
1. Santa Clara Valley Transportation Authority (VTA) staff has reviewed the Initial study for flood control improvements on Calabazas Creek in Saratoga between Saratoga-Sunnyvale Road and UPRR. We have no comments at this time.	Comment is noted.	N/A
D. Citizen		
1. I received the Notice of Intent regarding Calabazas Creek in the mail yesterday and took a look at the project plan. I am a resident that will be quite near the UPRR bridge and am very concerned about the noise levels that this will cause. As you know, we have had a number of issues in the past with noise from the UPRR coming through the neighborhood in the middle of the night, blowing the horns and waking us and our kids and it took a lot of calls, complaints and other activities to get UPRR from coming thru during sleeping hours. As a result, I am a bit skeptical of anything having to do with UPRR or other agencies as in the past the City of Saratoga seemed to have little control or concern over what goes on outside of their little bubble. I totally appreciate the fact that the plan says that the bulk of the work will be done during working hours. While this may be a problem for people like me who are home office based…I understand the need and hope that there will be efforts to minimize the noise. However, the plan does specify that some work on the UPRR bridge (which is very close to my home) may be done at night and given our history, that concerns me. Why would that work need to be done at night? We all have kids who need a quiet place to study and sleep. I need to make sure that the plans for the convenience of the workers are not to the detriment of the life of the residents in the neighborhood. Can you advise on what the plan is for the nighttime work and when the public hearings are? I just want to make sure again, that the commercial needs of UPRR are not being given more weight than the needs of the neighborhood. Again, most of us are fine with some level of disruption as we know it is necessary, but we do want to understand the extent of the nighttime work.	This comment is noted and was responded to via e-mail by District staff on October 2, 2009. To meet the constraints placed on the District by Union Pacific Railroad (i.e., no interruption to their Wednesday and Saturday morning trains), the most feasible schedule for this portion of the project includes nighttime construction during one, continuous 4-day period (Saturday through Tuesday). Nevertheless, the District strives to minimize the inconvenience of construction activities to the public, especially nearby residents. Please note that the District would implement several measures to reduce or minimize noise impacts of the proposed construction, as much as practicable (see the Noise evaluation in the Final Initial Study and Mitigated Negative Declaration on pp. 50-53). Such mitigation measures include use of noise control blankets and/or plywood barriers over construction equipment, muffling equipment, utilizing quieter procedures whenever feasible, and limiting deliveries of construction materials and equipment to day time hours only, In addition, as stated in Mitigation Measure NO-5 (p. 53 of this IS/MND) adjacent residents will be notified at least 30 days in advance about the estimated duration and hours of construction activities, including nighttime construction hours. Residents of properties located adjacent to nighttime construction activities will be offered a hotel room during the 4-day construction period at the UPRR bridge.	N/A